

The family-friendly city

***How to create more inclusive
urban environments?***

Tineke Kauffmann. s4138023

**Master thesis Society, Sustainability and Planning
University of Groningen, Faculty of Spatial Sciences**

Supervisor: dr. Özlemnur Ataol

June 28th, 2024

Colophon

Title	The family-friendly city: how to create more inclusive urban living environments?
Name	Tineke Kauffmann
Student Number	s4138023
Contact	t.j.kauffmann@student.rug.nl
Programme	Msc Society, Sustainability & Planning
University	University of Groningen
Faculty	Faculty of Spatial Sciences
Supervisor	Dr. Özlemnur Ataol
Version	Final version
Date	28th of June, 2024
Word Count	22.528
Cover Image	An impression of the new Grote Markt in the city centre of Groningen (Gemeente Groningen, n.d.)

Abstract

In recent years, young families worldwide increasingly choose to live in cities. However, both planners' and scholars' knowledge of the 'family-friendly city' is limited. A better understanding of families' needs and preferences in the urban environment is required to accommodate this growing population group. Therefore, this thesis investigates the spatial needs and preferences of urban families in the city of Groningen (the Netherlands) through the concept of affordances. The following research question is central: *"How can the needs of young families in cities, with regard to housing and living environment, be afforded in a sustainable and inclusive way?"*. Eight semi-structured interviews with parents or caregivers living within the ring road of the city of Groningen have been conducted to unravel their needs and preferences and perceptions of a 'family-friendly city'. The main needs of urban families include proximity to facilities and diverse and affordable housing options with sufficient indoor space in a green and physically and socially safe environment, considering the whole city as a potential playground. These findings have formed the basis of a refined definition of the 'family-friendly city'. Even though the city of Groningen is perceived as quite family-friendly, local issues regarding traffic safety, accessibility and health need to be addressed to keep the city liveable for families in the long run. This thesis advocates for a more inclusive approach to spatial planning to not only represent families' and childrens' needs in urban planning and design, but benefit all urban residents.

Keywords

Family-friendly urban planning and design, yupp's, affordances, residential choices and preferences

Table of contents

Colophon	1
Abstract	2
Table of contents	3
List of tables and figures	5
List of abbreviations	5
1 Introduction	6
1.1 Background of families and cities	6
1.2 Societal relevance: why family-friendly urban planning?	7
1.3 Scientific relevance: lack of knowledge	7
1.4 Research aim & research questions	8
1.5 Reading guide.....	8
2 Affordance theory	9
2.1 Levels of affordances	9
2.2 Affordances and child-friendliness	10
3 Dimensions of the family-friendly city	12
3.1 Definitions of the family-friendly city.....	12
3.2 Spatial needs and affordances of families in the urban environment.....	13
3.2.1 Proximity of facilities and efficient daily activity patterns.....	13
3.2.2 Urban lifestyle	14
3.2.3 Mobility, accessibility and safety.....	14
3.2.4 Affordable family housing	15
3.2.5 Green spaces and play spaces.....	16
3.2.6 Community networks: social safety and trust	17
3.2.7 A healthy environment.....	18
3.2.8 Participation in planning processes.....	19
4 Methodology	20
4.1 Research design	20
4.1.1 Participant profile	21
4.1.2 Background characteristics of participants.....	22
4.1.3 Geographical context.....	23
4.2 Process of data collection.....	26
4.2.1 Recruitment process.....	26
4.2.2 Interviewing process.....	26
4.3 Data analysis.....	27
4.3.1 Coding	27
4.3.2 Cards and rankings	27
4.4 Ethical considerations.....	29
5 Results	30

5.1 Criteria for choice of housing and place of residence	30
5.1.1 Ranking of environmental factors	31
5.2 Location of the neighbourhood: all needs at hand	32
5.2.1 Proximity to facilities	32
5.2.2 Logistics of daily life and employment	34
5.3 Housing preferences and requirements	35
5.3.1 Spatial affordances: a spacious home in connection to green space	35
5.3.2 Financial affordability	36
5.4 Social, spatial and institutional qualities of the neighbourhood	36
5.4.1 A healthy and green environment	37
5.4.2 Social structure of the neighbourhood: community networks and demographic matter	38
5.4.3 Child-friendliness	41
5.4.4 Urbanity: urban identity and vibrancy	43
5.4.5 Institutional qualities	44
5.5 Points of improvement: how to make the (inner) city more family-friendly?	45
6 Discussion	48
6.1 Spatial needs and affordances of urban families	48
6.2 Revisiting the definition of the family-friendly city	52
7 Conclusion	54
7.1 Revisiting the research questions	54
7.2 Limitations and suggestions for future research	56
References	58
Appendix 1: Interview guide	65
English	65
Dutch	68
Appendix 2: Consent Form	72
English	72
Dutch	73
Appendix 3: Participant recruitment call	74
English	74
Dutch	76
Appendix 4: Coding tree	78
Appendix 5: Representative excerpts of codes	79
Appendix 6: Criteria for choice of place of residence	84
Appendix 6a: Impact of calculation method on average rankings table 5.2	86
Appendix 7: Ranking of environmental factors	87
Appendix 7a: Impact of calculation method on average rankings table 5.4	88
Appendix 8: Policy advice: a more inclusive approach to spatial planning	89

List of tables and figures

Tables

Table 3.1	Main elements of existing definitions of the family-friendly city
Table 4.1	Background characteristics of the participant group
Table 5.1	The total frequency of each category within the criteria lists, in order
Table 5.2	The average ranking of each category within the criteria lists, in order (the lower the value, the higher the average ranking)
Table 5.3	The number of (shared) first place rankings for each factor, in order
Table 5.4	The average ranking of each factor, in order (the lower the value, the higher the average ranking)

Figures

Figure 0.1	An impression of the new Grote Markt in the city centre of Groningen
Figure 3.1	A visual overview of the spatial needs of families in cities
Figure 4.1	Households with children, relative to the municipal average
Figure 4.2	Households with children, relative to the municipal average, in the neighbourhoods of participants
Figure 4.3	Population of Groningen 0-15 years (left) and household with children in Groningen (right) per neighbourhood, both in numbers
Figure 6.1	A visual representation of the elements building the definition of the family-friendly city

List of abbreviations

Yup's	Young urban professionals
Yupp's	Young urban professional parents

1 Introduction

1.1 Background of families and cities

Wider urbanisation trends

Recently, families worldwide increasingly choose to live in cities (Boterman & Karsten, 2015; Drianda, 2018). By 2050, 70% of children are expected to be living in cities (UNICEF, 2012). This implies a shift in preferences, as families used to be an atypical sight in cities (Boterman & Karsten, 2015). Cities were once perceived as an unsuitable place to raise children due to dangers of criminality, drug trade and prostitution, incentivizing young parents to change the city for a more spacious and safer environment: “*It takes a village to raise a child*” (Drianda, 2018). Today, the yup’s (young urban professionals) of the millennial generation have become parents: yupp’s (young urban professional parents) (Boterman & Karsten, 2015; Karsten, 2013; Drianda, 2018). This trend can be characterized as ‘life stage blending’: instead of moving out, new parents stay in the city after having children (Lilius 2014, 2017). In contrast to dominant views of a ‘traditional family’, families’ diverse needs (Lilius, 2014) and residential preferences (Boterman & Karsten, 2015) are increasingly recognized. As the young urban population keeps growing, the necessity for family-friendly urban planning increases (Drianda, 2018). Urban planning and design has a crucial role in creating family-friendly cities that put the interests of young children and families central (Krishnamurthy, 2019). However, very few practices exist yet that aim to create a family-friendly urban environment for yupp’s (Drianda, 2018).

Affordability challenges form a threat for family-friendly cities

The affordability of urban living is under pressure globally. The renewed interest in urban living, besides developments of gentrification and globalization, has led to rising real estate prices in core urban areas. As a result, concerns have risen that the lack of affordable housing seriously threatens the family-friendliness of cities (Lilius, 2014, 2017; Silverman et al., 2019): “child friendly” is characterized as “middle-class friendly” (Van den Berg, 2013, p. 534). Dutch cities form no exception to this trend. The Netherlands face a severe housing shortage, especially concerning family homes in cities (Rijksoverheid, n. d.). Media have raised concerns on families’ inability to find affordable housing, e.g. in Amsterdam, despite the growing interest in urban living (Couzy, 2017). Outside cities, families can find much more indoor and outdoor space at a lower price (Couzy, 2017; Van Kessel & De Bont, 2023b). The housing prices are seen as a threat for the urban population diversity: Amsterdam is still growing, but the number of families has stagnated in recent years (Couzy, 2017). As more families leave the city, the support base of facilities such as childcare, schools and playgrounds decreases and the social structures in the neighbourhood weaken, resulting in a downward spiral further diminishing the attractiveness of the city for families (Van Kessel & De Bont, 2023b).

1.2 Societal relevance: why family-friendly urban planning?

Cities and families benefit from each other, as a well-balanced demographic mix of household compositions and income groups contributes to the social sustainability of the city (Drianda, 2018; Couzy, 2017). A generational balance is crucial to achieve vibrant, sustainable and economically stable communities (Warner & Baran-Bees, 2012; Warner & Rukus, 2013a; Warner & Rukus, 2013b; Israel & Warner, 2008). Retaining families with children in the city is important to maintain this balance (Warner & Baran-Bees, 2012; Warner & Rukus, 2013b).

Similar to child-friendly cities, a family-friendly city not only benefits families, but the city as a whole (Rukus & Warner, 2013; Warner & Rukus, 2013b). Families form the backbone of social structure in neighbourhoods, forming strong social networks (Van Kessel & De Bont, 2023b). Families spend relatively much time outside in their neighbourhoods (Lilius, 2017), contributing to social safety and social cohesion. A diversity of ethnic and socio-economic backgrounds - not only families who can afford to live in the city or have no alternative - is crucial to reduce societal risks of social segregation and polarization (Van Kessel & De Bont, 2023b). Furthermore, families create jobs, for example in the childcare, education and leisure sector, which in turn contribute an attractive environment for families (Van Kessel & De Bont, 2023b). Additionally, families' perspective on public space, with more attention to play spaces, traffic safety and health, is beneficial to all residents (Van Kessel & De Bont, 2023b). Therefore, family-friendly planning not only affords the needs of families and children, but also contributes to retaining residents of all ages (Warner & Rukus, 2013b), thus creating more liveable communities (Warner & Rukus, 2013a; Gür, 2019; Rukus & Warner, 2013).

1.3 Scientific relevance: lack of knowledge

The importance of a child-friendly city is internationally recognized in planning practice and research (for example the United Nations Child Friendly Cities Initiative). In contrast, attention for a 'family-friendly city' is more rare in urban planning (Drianda, 2018). A family-friendly city has overlap with a child-friendly city, as it includes the needs of both caregivers and children, which are partly interrelated (dependent on the age of children). However, current knowledge of planners and scholars of a family-friendly city is inadequate to afford the diverse needs of urban families (Drianda, 2018; Lilius, 2014). Therefore, more research on the family-friendly city in different (geographical) contexts that is sensitive to this diversity of needs and preferences is necessary. Particularly in the face of urban affordability challenges, the issue of developing cities in a more sustainable and inclusive manner is pressing (Lilius, 2014; Silverman et al., 2019).

The term 'family-friendly city' does not have a uniform and consistently used definition yet (Drianda, 2018). Studies focusing on families as a whole are still unique. Therefore, Drianda (2018) calls for more research in order to develop a shared vision and definition of a 'family-friendly city', which helps us to better support urban families. This research contributes to filling the knowledge gap by conducting empirical research in a geographical context (the city of Groningen, the Netherlands) that has not been

studied yet in the context of family-friendliness. From an academic perspective, this thesis provides a refined definition of a family friendly city (Drianda, 2018). From a planning practice perspective, this research provides policy advice for family-friendly urban planning based on a better understanding of their needs (Drianda, 2018; Lilius, 2014). Especially young families of the millennial generation who wish to stay in the city have not received much planning attention so far (Karsten, 2007; Warner & Rukus, 2013), while their housing, environmental and lifestyle needs and preferences differ from previous generations.

1.4 Research aim & research questions

This thesis aims to broaden the understanding and definition of the ‘family-friendly city’ and identify key elements of a planning framework to afford families’ needs in cities in a sustainable and inclusive way.

Therefore, the following question is central throughout the research: *“How can the needs of young families in cities, with regard to housing and living environment, be afforded in a sustainable and inclusive way?”*

To address the main research question, the following sub questions have been formulated:

1. What are the main needs of young families in the urban environment?
2. Which factors determine the preferred and actual place of residence of young urban families?
3. Which barriers to afford their needs do young urban families experience in the urban environment?

1.5 Reading guide

The structure of this thesis is as follows. Chapter 2 introduces the central theoretical concept of affordances. Chapter 3 reviews existing definitions of the family-friendly city and presents eight main needs that need to be afforded in the urban environment. Chapter 4 explains the applied methods. Chapter 5 presents the empirical results, which are analysed through the concept of affordances in chapter 6.1. Based on this, chapter 6.2 proposes a refined definition of a ‘family-friendly city’. Finally, chapter 7 provides a conclusion in an attempt to answer the main research question. At the end of the thesis, a list of references and appendices can be found.

2 Affordance theory

In Gibson (1979)'s original paper on affordance theory, the verb 'afford' refers to 'offer', 'provide' or 'furnish'. An affordance then refers to the qualities that the environment provides to the animal, but these cannot be seen in isolation: they are complementary. The physical qualities of the environment are unique to each animal. For example, the support a surface provides to an animal highly depends on its size. More recent literature has built on this **interaction between the characteristics of an individual and the environment** (e.g. Pozzi et al., 2014; Aziz & Said, 2015; Kyttä et al., 2018; Krishnamurthy & Ataol, 2020). “[..] *people shape the environment and are shaped by their environment*” (Aziz & Said, 2015, p.8). Kyttä et al. (2018) define an affordance as “*not a characteristic of the environment, nor a characteristic of the individual, but rather something between them*” (p.320). Therefore, an affordance is unique to each individual (Kyttä, 2002).

Affordances are **functional features** of the environment that could be perceived by an individual through interaction with the environment (Kyttä, 2002; Othman & Said, 2012; Aziz & Said, 2015). This especially applies to children, who perceive the environment in terms of functionality (e.g. “playability”), whereas adults tend to focus on aesthetic values (Aziz & Said, 2015; Krishnamurthy & Ataol, 2020). Gibson (1979) notes that young children first recognize ‘meaning’ instead of substance, surface, colour or form. Besides physical properties, Kyttä et al. (2018) present an extended definition including **emotional and social affordances**, in which the environment either facilitates or restricts action. Krishnamurthy & Ataol (2020) define social or emotional affordances as “*provided by the presence of people or a community, which might include security, nurturing or the feeling of inclusion in spaces that support social interaction behaviours*” (p.13). For children, social affordances such as playing, meeting and making friends and gaining independence and privacy from adults are important functionalities of the environment (Kyttä et al., 2018; Krishnamurthy & Ataol, 2020). In a study on cul-de-sacs, Othman & Said (2012) found that not aesthetic design, but caregivers’ permission and affordances of sociality determined childrens’ affordances of play. Clement & Waitt (2018) found that besides material affordances, ‘affective affordances’ of being a ‘good’ mother, father, child or family might affect the usage of strollers and shape experiences of childhood and parenthood.

2.1 Levels of affordances

A common distinction is potential and actualized affordances. **Potential affordances** provide a possibility for action in the environment (Pozzi et al., 2014; Raymond et al., 2017; Volkoff & Strong, 2017). Generally, the number of potential affordances is infinite, as they exist regardless of perception by humans (Aziz & Said, 2015; Volkoff & Strong, 2017). The range of potential affordances is unique to each individual, as the ability to perceive them depends on individual qualities, both physical features (e.g. size) and social features (e.g. intentions and awareness) (Othman & Said, 2012; Aziz & Said, 2015; Krishnamurthy & Ataol, 2020).

Actualized affordances only arise through interaction with the environment, such as movement or perception (Aziz & Said, 2015; Krishnamurthy & Ataol, 2020; Othman & Said, 2012). Gibson (1979) stressed that action and perception of affordances are interrelated: “*We must perceive to be able to move around, and we must move around to be able to perceive*” (p.127). By actualizing affordances, environmental opportunities are matched with personal abilities in a meaningful way (Raymond et al., 2017).

Actualized affordances can be further distinguished by perceived, utilized and shaped affordances. Othman & Said (2012) refer to perceived affordances as ‘passively actualized’, while utilized and shaped affordances are ‘actively actualized’. **Perceived affordances** are recognized by the individual through observation of the environment. Perception is framed by individual qualities and intentions and therefore determines whether an individual can utilize these affordances (Aziz & Said, 2015; Raymond et al., 2017). **Utilized affordances** are actually converted through direct physical interaction with the environment (Aziz & Said, 2015), which is affected by individual and social cultural factors (Raymond et al., 2017). For example, children might need encouragement or permission to utilize affordances of playing, sitting, swimming or climbing (Raymond et al., 2017; Othman & Said, 2012). Lastly, **shaped affordances** are created by modification of environmental properties (either function or form (Aziz & Said, 2015; Raymond et al., 2017). The process of actualization changes relations between the individual and the environment, resulting in new affordances or changing existing ones (Raymond et al., 2017). An example of a shaped affordance could be a necklace or hair accessory made from daisies.

Affordances can be both **constraining and enabling** (Volkoff & Strong, 2017). The environment provides opportunities, but also constrains the extent to which individuals can utilize or shape those affordances (Gibson, 1979). For example in the case of social and cultural context, parents may either encourage their children to climb a tree or discourage them to avoid dirty clothes, which affects whether this potential affordance will be utilized or not (Kytä, 2002).

2.2 Affordances and child-friendliness

Affordances have often been applied to environmental child-friendliness (e.g. Broberg et al., 2013; Kytä et al., 2018), defined as “*a meaningful exchange between child and place through affordance actualization in places*” (Chatterjee, 2005, 2006; cited by Broberg et al., 2013, p.111). Broberg et al. (2013) found that affordance actualization was also central in childrens’ own definition of friendly places in Finland. Quantitative measures of child-friendliness including the child-environment fit are defined by the number of actualized affordances (Aziz & Said, 2015).

Two key criteria for environmental child-friendliness are 1) possibilities to actualize environmental affordances and 2) independent mobility (Broberg et al., 2013; Kytä et al., 2018). In the Bullerby model (Kytä, 2003), a child-friendly environment provides both a high degree of independent mobility and a high number of actualized affordances. Therefore, these criteria are interrelated (Krishnamurthy & Ataol, 2020), creating a positive reinforcing cycle (Broberg et al., 2013).

Many factors influence childrens' actualization of affordances. These factors are similar to factors that influence their environmental preferences, which increase the likelihood of using a place and revisiting it as a result of positive experiences (Aziz & Said, 2015). Section 3.2 discusses a number of these factors in depth, including both children and caregivers' needs.

3 Dimensions of the family-friendly city

3.1 Definitions of the family-friendly city

To date, there is no uniform and consistently used definition of the ‘family-friendly city’ yet (Drianda, 2018). Table 3.1 provides an overview key elements of existing definitions of a family-friendly city. As a family-friendly city both affords the needs of children and adults (caregivers) which are largely interrelated, some definitions (e.g. Gür, 2019; Cushing 2016) are based on the child-friendly city. Section 3.2 discusses these elements in more depth.

Element of definition	Explanation	Source
Housing affordability	Financially affordable housing options for families	Drianda et al. (2018, p.9) Silverman et al. (2019, p.171) Karsten (2017) Warner & Rukus (2013a, p.1)
Safety	Physical safety (e.g. slow and safe traffic, walkability) Social safety	Drianda et al. (2018, p.8 & 9) Silverman et al. (2019, p.171) Buschmann & Coletta (2009, p.23) Karsten (2017) Warner & Rukus (2013a, p.1) Gür (2019, p.737) Cushing (2016, p.155)
Educational quality	Including schools and childcare facilities	Drianda et al. (2018, p.8 & 9) Silverman et al. (2019, p.171) Buschmann & Coletta (2009, p.23) Karsten (2017) Warner & Rukus (2013a, p.1) Gür (2019, p.737)
Social life	Inclusive, high quality public space to meet and interact (including places to sit and broad sidewalks)	Drianda (2018, p.8) Karsten (2017) Gür (2019, p.737) Cushing (2016, p.155)
Green space	Green streets and squares and urban parks	Karsten (2017) Warner & Rukus (2013a, p.1) Gür (2019, p.737) Cushing (2016, p.155)
Health	A clean and pollution-free environment	Drianda (2018, p.8) Gür (2019, p.737) Cushing (2016, p.155)
Spaces and places for children	Including green, adventurous and engaging playgrounds and sports areas and schoolyards	Karsten (2017)
Access to jobs	Providing economic opportunities	Drianda (2018, p.8)
Time for family bonding	Contributing to work-family balance	Drianda (2018, p.8)
Children as stakeholders	Representation of childrens’ and families’ voices in urban planning processes and public policy	Karsten (2017) Cushing (2016, p.154)

Table 3.1: Main elements of existing definitions of the family-friendly city

3.2 Spatial needs and affordances of families in the urban environment

This section describes the main spatial needs of families in an urban environment, based on a variety of studies and the preceding definitions. Families' needs have been divided into eight affordances as visualized in figure 3.1, which also represents the structure of this section.

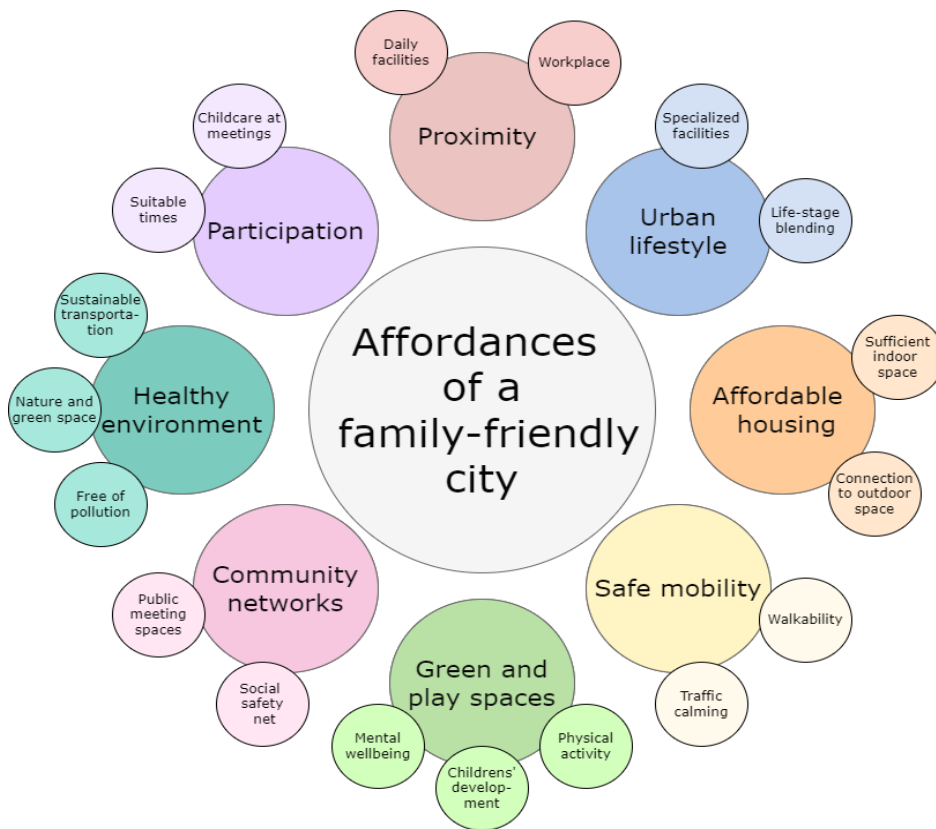


Figure 3.1: A visual overview of the spatial needs of families in cities

3.2.1 Proximity of facilities and efficient daily activity patterns

The lifestyle of contemporary urban families including a variety of activities - from childcare, household tasks and employment to social and leisure activities - requires an efficient daily activity pattern (Boterman & Karsten, 2015). The location of the neighbourhood in relation to facilities and work affords families the ability to perform their preferred activity pattern (Karsten, 2007). Therefore, **proximity to the workplace and (daily) facilities** constitutes an essential element in the daily life of working families. In particular, commuting time is an important factor for dual career families (Karsten, 2007; Krishnamurthy, 2019; Brun & Fagnani, 1994). Shorter commuting times provides families with more time to spend together, enhancing work-life balance, and increased job opportunities (Drianda, 2018; Lilius, 2014). Besides, short distances to the workplace and daily facilities potentially facilitate a more equal distribution of childcare and household responsibilities, whilst affording more quality time with children (Boterman & Karsten, 2015; Lilius, 2017; Drianda, 2018; Karsten, 1998): “*the city as the engine of emancipation*” (Boterman & Karsten, 2015, p.118/125). The growing desire for urban living is partly motivated by societal developments, such as increased labour participation of women and

subsequently a shift in division of household tasks (Karsten, 1998, 2014a; Boterman & Karsten, 2015). The concept of the 15-minute city is thus also very family-friendly (Van Kessel & De Bont, 2023a).

Therefore, the **presence of daily facilities at neighbourhood level** contributes to a family-friendly environment (Warner & Rukus, 2013a, 2013b; Israel & Warner, 2008; Gür, 2019; Van Kessel & De Bont, 2023a), influencing the level of affordances in the neighbourhood (Krishnamurthy & Ataol, 2020). Accessible and good quality childcare is especially important to retain families in the city (Karsten, 2003, 2017; Lilius, 2014). Basic facilities that need to be present at neighbourhood level include, but are not limited to: childcare, schools, sports facilities, recreational spaces and playgrounds and a variety of shops (Karsten, 2014a; Gür, 2019; Van Kessel & De Bont 2023a). Neighbourhood amenities also facilitate encounters between neighbours, contributing to strong local social networks (Lilius, 2017; Van Kessel & De Bont, 2023a). An important concept affording families the possibility to perform a diverse activity pattern is **trip chaining**. Trip chaining refers to combining travel routes based on place of residence, including daily needs such as child care, work, and grocery stores but also recreational spaces (Israel & Warner, 2008; Warner & Rukus, 2013b). Efficient transportation systems and spatial concentration of daily facilities promote the possibilities for trip chaining. An example is caregivers doing groceries whilst children are playing nearby (Ataol et al., 2022). A compact urban design allowing caregivers to combine activities at walking distance is especially important for families with very young children (toddlers). This age group requires accompaniment of caregivers, resulting in interdependent daily activity patterns (Ataol et al., 2022). Therefore, trip chaining forms the 'glue' in the daily activity pattern of urban parents which can significantly reduce stress and commuting time.

3.2.2 Urban lifestyle

Besides the necessity to live close to the workplace and daily facilities, urban families are also attracted to an **urban lifestyle** and proximity to specialized urban facilities, such as cafés, shops and cultural activities (Karsten, 1998, 2009, 2014a; Lilius, 2014; Gür, 2019; Krishnamurthy, 2019). Besides adults, facilities and activities for children (e.g. culture or sports) are important (Karsten, 2009; Gür, 2019). The location of the neighbourhood strongly affects affordances of combining an urban lifestyle and career with caring for children (Karsten, 2003; Boterman et al., 2012). Brun & Fagnani (1994) found that families with a preference for an urban lifestyle valued location more than housing itself. A central location affords caregivers the possibility to continue their preferred urban lifestyle after having children: 'life stage blending' (Lilius, 2014). Therefore, an urban lifestyle is an important explanatory factor for families' choice of residential location, besides time-geographical considerations (Karsten, 2003, 2007).

3.2.3 Mobility, accessibility and safety

Transportation is crucial in affording families' daily needs and affects possibilities of trip changing. Accessibility of facilities for people of all ages and incomes contributes to a family-friendly environment (Gür, 2019). Focusing on children, the spatial concentration of services (e.g. schools, parks, playgrounds, recreational spaces, library, community centres and healthcare facilities) on

neighbourhood level affords independent travel from a young age and is associated with increased physical activity, improved health and well-being (Israel & Warner, 2008; Krishnamurthy & Ataol, 2020). Neighbourhood facilities need to be particularly well accessible by foot and bike and provide sufficient bicycle parking (Van Kessel & De Bont, 2023a). Besides, accessible and affordable public transport is a key element of a family-friendly urban environment (Israel & Warner, 2008; Gür, 2019; Van Kessel & De Bont, 2023a), besides contributing to sustainability objectives.

Furthermore, **traffic safety** provides affordances of safe and independent access to facilities and play spaces, benefitting both caregivers and children. Caregivers are relieved from accompanying their children on every trip, affording more time and flexibility in their daily life (Krishnamurthy & Ataol, 2020). Restrictions of independent mobility hinder childrens' physical, social and cognitive development (Karsten & van Vliet, 2006b) and increase risk of accidents later in life (Van Kessel & De Bont, 2023a). Furthermore, a lack of traffic safety negatively affects childrens' health due to decreased physical activity (Krishnamurthy & Ataol, 2020). Ataol et al. (2022) show that perceived unsafety by caregivers due to heavy traffic limits toddlers' outdoor play. As expressed by children themselves, fast-driving cars, cars parked on sidewalks and inadequate cycling infrastructure poses large challenges to safe walking and cycling (Ataol et al., 2023). As a result, a lack of traffic safety, restricting children's freedom of movement, has been named as one of the biggest concerns of urban parents and an important reason for families to leave the city (Karsten, 2007; Lilius, 2014).

Therefore, families are calling for **traffic calming measures** in their residential environment (Karsten, 2003, 2007, 2009, 2017; Karsten & van Vliet, 2006a; Gür, 2019; Ataol et al., 2023), especially around school zones (Van Kessel & De Bont, 2023a, 2023b; Karsten & van Vliet, 2006b). Focusing on slow traffic (walking and cycling) in the neighbourhood enhances childrens' independent mobility (Van Kessel & De Bont, 2023a). Sidewalks, limited traffic volumes and speed and controlled intersections, especially around school zones, promote childrens' physical activity and wellbeing and provide affordances of social interaction for both adults and children, contributing to a family-friendly environment (Krishnamurthy & Ataol, 2020; Israel & Warner, 2008; Warner & Rukus, 2013a, 2013b; Gür, 2019; Ataol et al., 2023). For caregivers in particular, the usage of strollers in the city can both ease or complicate transportation of children (Clement & Waitt, 2018). Walkable neighbourhoods with a low traffic intensity and broad sidewalks provide affordances of carefree strolling (Krishnamurthy & Ataol, 2020). By promoting greater traffic safety, the streets can become a space for children again (Karsten, 2005): a space to live and meet others, instead of a space for traffic (Van Kessel & De Bont, 2023a).

3.2.4 Affordable family housing

The availability of **suitable and financially affordable housing for families** is an indispensable affordance for attracting and retaining families in cities (Karsten, 2017; Warner & Rukus, 2013a; Israel & Warner, 2008; Gür, 2019). Many middle-class families who wish to live in cities are unable to afford suitable housing (Karsten, 1998; Lilius, 2014, 2017; Silverman et al., 2019). Families need sufficient

space to accommodate all members (Karsten, 2009). According to Van Kessel & De Bont (2023a), this means at least three bedrooms and an extra storage space besides the living room.

Beyond the home itself, family-friendly housing affords a **direct connection to the street or outdoor space** (Israel & Warner, 2008). Building design that well connects the ground floor to the street provides affordances of social safety (Van Kessel & De Bont, 2023a). Family housing is ideally located on the ground floor whenever possible and directly connected to (public) outdoor space, e.g. broad sidewalks or a courtyard (Van Kessel & De Bont, 2023b). Regardless of its height, family housing should be maximum two floors away from a collective outdoor space to ensure contact between children and caregivers (Van Kessel & De Bont, 2023a, 2023b). In the case of high and mid-rise buildings, this could be realized by a staircase, roof terraces or rooftop gardens (Van Kessel & De Bont, 2023a). Other researchers recommend low- or mid-rise housing for families, as this provides affordances of outdoor play (Krishnamurthy & Ataol, 2020), social interaction and a sense of safety (Gür, 2019).

3.2.5 Green spaces and play spaces

Safe and green outdoor play spaces (such as parks, gardens, playgrounds) that offer affordances of high quality outdoor play are essential for childrens' wellbeing and development (Krishnamurthy & Ataol, 2020; Krishnamurthy, 2019; Ataol et al., 2022; Van Kessel & De Bont, 2023a). Outdoor play develops childrens' ability to deal with freedom as well as their motoric and social skills (Van Kessel & De Bont, 2023a). Children are attracted by challenging and interactive play environments that provide affordances of complexity and a variety of opportunities (Aziz & Said, 2015). They prefer outdoor environments providing opportunities to manipulate or create new qualities (i.e. shaped affordances), which are actualized through sensory and motoric actions of interactive natural elements (Othman & Said, 2012). Therefore, the presence of accessible recreational facilities and green spaces in the neighbourhood is positively associated with childrens' physical health by promoting physical activity (Krishnamurthy & Ataol, 2020; Israel & Warner, 2008) and mental health due to the restorative effect of functional activity (Aziz & Said, 2015). Furthermore, interaction with nature is essential for childrens' emotional, social, intellectual, spiritual and physical development (Aziz & Said, 2015; Krishnamurthy & Ataol, 2020; Israel & Warner, 2008; Cushing, 2016). The presence of green space increases the likelihood of children liking a place (Broberg et al., 2013). As a result, Karsten & van Vliet (2006a) found that opportunities for outdoor play are guiding caregivers' decision-making of staying in the city, as they are considered essential for children's development. Besides children, green spaces and play spaces provide important affordances for adults as well, such as social interaction with other caregivers (Van Kessel & De Bont, 2023a; Krishnamurthy & Ataol, 2020; Ataol et al., 2022). Krishnamurthy & Ataol (2020) found that visiting parks and gardens was a common leisure activity for families, not only providing physical affordances of play and exercise, but also social affordances of family bonding and meeting others.

Therefore, families are longing for **recreational and play spaces** nearby that are accessible, safe, green, attractive, adventurous, engaging and well-maintained (Karsten & van Vliet, 2006a; Karsten,

2003, 2007, 2009, 2017; Gür, 2019; Ataol et al., 2022; Ataol et al., 2023; Van Kessel & De Bont, 2023a) and urban parks (Israel & Warner, 2008; Warner & Rukus, 2013a, 2013b; Lilius, 2014; Karsten, 2017; Gür, 2019). Besides traditional playgrounds, high quality, 'playable' public spaces (such as broad sidewalks and green open spaces) are important, especially in urban neighbourhoods with little outdoor and indoor space, let alone a private garden (Buschmann & Coletta, 2009; Van Kessel & De Bont, 2023a). This way, the process of exclusion of children from urban public spaces (Karsten, 2002) could be reversed.

3.2.6 Community networks: social safety and trust

Community networks provide important affordances to all residents, but families in particular. They function as a **social safety net**, by exchanging experiences and practical support (Van Kessel & De Bont, 2023a; Karsten, 2003). The neighbourhood community functions as an 'extended family', providing affordances of **community trust** which enhance childrens' development and wellbeing (Krishnamurthy & Ataol, 2020). Knowing neighbours increases caregivers' perception of social safety, which is considered a vital quality of the neighbourhood with regard to parental duties (Karsten, 2003; Ataol et al., 2022). Besides, families keeping 'eyes on the street' enhance caregivers' perception of social safety (Silverman et al., 2019; Buschmann & Coletta, 2009). Children also benefit from a strong sense of community, as caregivers' affordances of social safety promote childrens' independent mobility, physical activity and play, resulting in a greater number of potential affordances (Broberg et al., 2013; Krishnamurthy & Ataol, 2020; Aziz & Said, 2015). Sharing supervising responsibilities affords caregivers more flexibility in daily life (Krishnamurthy & Ataol, 2020) and encourage childrens' outdoor play in high traffic areas (Karsten & van Vliet, 2006b). Therefore, families are more likely to invest in social networks than their childless neighbours, and especially working families who mostly rely on local social support networks (Karsten, 2007). Compared to childless households, families are less likely to move (over long distances) to stay connected to their social network, which are often tied by the presence of children (Dawkins, 2006; Karsten, 2007; Drianda, 2018). Many yup's who stay in the city after graduating still rely on their student network while transitioning into a new phase of life (Boterman & Karsten, 2015).

Public meeting spaces are an essential feature for affordances of social interaction, safety and trust, either in a formal (e.g. organized community meetings) or informal (e.g. streets, playgrounds) setting (Van Kessel & De Bont, 2023a; Ataol et al., 2022). Compared to previous life stages, parents with young children spend much time in their own neighbourhood (Lilius, 2017; Karsten, 2003). Especially in early parenthood, public meeting spaces are important to combat social isolation (Lilius, 2017) or share experiences and knowledge with other families (Gür, 2019; Ataol et al., 2022). Inviting public spaces - including squares, parks, green spaces, broad sidewalks and urban furniture - provide potential affordances of social interaction and an increased sense of social safety (Gür, 2019; Israel & Warner, 2008; Karsten, 2014a, 2014b, 2017; Krishnamurthy & Ataol, 2020; Ataol et al., 2022; Van Kessel & De

Bont, 2023a). In particular, spaces that facilitate childrens' independent play have a high potential to promote social contact between caregivers (Karsten & van Vliet, 2006a; Ataol et al., 2022).

Demographic structure of the neighbourhood

There is a fine balance between affordances of homogeneity and heterogeneity (Karsten, 2009). On the one hand, urban families prefer a **diverse population** and want to meet 'the other' citizens, while strongly disliking the homogeneity of suburbs (Karsten, 2017). Diversity is part of an urban identity of families who want to distance themselves from the - in their eyes - monotone and overprotected suburbs (Karsten, 2007; Boterman & Karsten, 2015). A diversity of ages is essential for a vibrant community (Warner & Baran-Bees, 2012). Promoting a diversity of housing types and densities may foster economically and socially diverse communities (Israel & Warner, 2008; Gür, 2019). Meeting peers of diverse ethnic and socio-economic backgrounds in the neighbourhood is crucial for childrens' socio-emotional and cognitive development (Van Kessel & De Bont, 2023b). Urban spaces that facilitate encounters between a diverse group of people (in terms of age, household composition, socio-economic class, ethnicity) provide affordances of social cohesion, safety and inclusivity (Karsten, 2017). On the other hand, the presence of **like-minded families** with similar beliefs and socio-economic backgrounds and similarly aged children is valued on street or block level, which contributes to the formation of social networks (Karsten, 2007, 2009). Similarity of backgrounds at the local scale stimulates affordances of belonging and trust (Karsten & van Vliet, 2006a; Karsten, 2003).

The presence of **other families** nearby provides affordances of practical and emotional support, as well as social control in the neighbourhood (Karsten & van Vliet, 2006a). Furthermore, families form the backbone of the social structures necessary for raising children and are important users of neighbourhood facilities including schools and childcare centres, which are important places of social interaction (Van Kessel & De Bont, 2023a). The presence of other families also affords childrens' desire for playmates (Karsten & van Vliet, 2006a; Karsten, 2014a; Ataol et al., 2023; Krishnamurthy & Ataol, 2020), specially for single children (Karsten, 2009). Affordances of playing or socializing with peers is found to be an important reason to be outdoors for children (Ataol et al., 2023), increasing the probability of liking and using a place (Broberg et al., 2013; Aziz & Said, 2015). In line with these studies, Swisher et al. (2004) found that the presence of other families and children in a neighbourhood is related to higher ratings of family-friendliness.

3.2.7 A healthy environment

Child- and family friendly communities should afford **a clean and pollution-free environment** (Drianda, 2018; Gür, 2019; Ataol et al., 2022). Air pollution is detrimental for childrens' health (Krishnamurthy & Ataol, 2020), especially for young children and pregnant women as emissions are at childrens' height (Van Kessel & De Bont, 2023a). Therefore, sustainable transportation is a crucial element of a family-friendly city (Van Kessel & De Bont, 2023a). Furthermore, family housing and pedestrian and cyclist infrastructure should be distanced from large volumes of traffic and environmental zones (Gür, 2019; Van Kessel & De Bont, 2023a).

Nature and green space are also important for both childrens' and adults' health. Nature has a restorative effect on adults' health and well-being, offering affordances of relaxation and retreat (Krishnamurthy & Ataol, 2020; Aziz & Said, 2015). Green spaces and trees in the neighbourhood contribute to childrens' active lifestyle (Krishnamurthy & Ataol, 2020; Ataol et al., 2022) and encourage both to spend time outdoors (Ataol et al., 2023). Green space also has a restorative effect on children, contributing to a good perceived health (Broberg et al., 2013; Aziz & Said, 2015). Besides, green spaces and trees improve health by promoting climate resilience. In the context of a family-friendly city, temperature control is the most important feature, as extreme heat disproportionately affects cities (Van Kessel & De Bont, 2023a).

3.2.8 Participation in planning processes

Many researchers stress the importance of including children and families in planning and decision-making processes to better afford their needs (Israel & Warner, 2008; Warner & Rukus, 2013a; Gür, 2019). “[.] *the best way for municipalities to meet the needs of families is to make them part of the process*” (Rukus & Warner, 2013, p.39). Karsten (2017) pleads for “children as stakeholders” as a key feature of family-friendly planning. Krishnamurthy (2019) advocates for a better representation of young children and families' interests in urban planning and design, which will put childrens' needs higher on the urban agenda. Families' participation in planning processes could for example be accommodated by hosting meetings at various times of the day and providing childcare during meetings (Israel & Warner, 2008; Rukus & Warner, 2013).

4 Methodology

4.1 Research design

This research is qualitative by nature, as it aims to gain in-depth information, such as the underlying reasons behind families' choices, needs and wishes, which cannot be solely captured by statistics and numbers (Clifford et al., 2016). Instead, words are needed to express the complexity of the choices and trade-offs that families make on a daily basis. Therefore, interviews were considered the most suitable method, as it allows participants to freely express themselves without being restricted by the number of questions in a survey, a word limit or having to write down their thoughts on paper. Instead, interviews provide a slightly informal and comfortable setting to elaborate on any aspect, and a two-way conversation stimulates the development of thoughts throughout the interview. Besides, the researcher is able to clarify questions if needed and check for different interpretations. This is necessary to guarantee validity of data and results in a rich and detailed dataset supportive in answering the main research question. For this purpose, interviews have been applied by many researchers studying the needs of families and children in urban environments, including Gür (2019), Karsten (1998, 2003, 2005, 2007, 2009, 2014b), Krishnamurthy (2019) and Lilius (2014, 2017).

In particular, semi-structured interviews were chosen, which is the most common type of interview (Clifford et al., 2016). Semi-structured interviews provide room for participants' own input and allow flexibility to deviate from the interview guide to include relevant topics that come up unexpectedly (Clifford et al., 2016). This is important, because each participant has a unique experience which might go beyond the frames of the interview guide (based on the theoretical framework). Furthermore, people often do not express their thoughts in a clearcut, organized way, and semi-structured interviews provide room for this freedom. It also allows the researcher to ask follow-up questions based on previous answers.

An interview guide has been developed (appendix 1) to provide some structure and ensure that the collected data contributes to answering the main research question. However, it is treated only as a guideline and used as a checklist to ensure all relevant elements have been touched upon. The interview started with background characteristics, such as age, profession, household composition and residential history. Subsequently, the following topics were discussed in rough order: needs and preferences with regard to housing and environment, social networks, combining career and family life and participation in urban planning. Within the first topic, participants were asked to compose a criteria list for choosing housing and a place of residence and subsequently rank these. Later, participants were also asked to rank a list of predefined environmental factors based on the theoretical framework and explain their choices and trade-offs. At the end, participants were given the opportunity to add any own input. As the interviewing process developed, insights were gained that led to asking additional questions to following participants to check whether certain views were prevalent or exceptional. Examples include the municipal bike parking policy or the suitability of the city centre for families.

4.1.1 Participant profile

This thesis focuses on the needs of young families in an urban environment. However, only caregivers have been interviewed, while children and adults might have different needs and opinions. In order to explore the needs of families as a whole, participants were asked to approach all questions with their entire family in mind at the start of each interview. This approach might have led to more explicit consideration of childrens' needs during the interview, however a focus on the participants' own needs as an adult/caregiver cannot be excluded. The researcher recognizes that this approach is not perfect: children are best able to express their own needs. However, as this thesis does not focus on a child-friendly city, it has been chosen to let parents or caregivers represent their voice. This choice has also been made because of practical reasons: including children in the data collection process would have implied a much more complex participant recruitment process, data collection method (engaging children requires a different approach) and more attention to ethical issues. This was not considered feasible due to time limitations, a lack of experience with including children in research and absence of contacts within educational environments that would ease the process of gaining trust of teachers and caregivers to perform research with children. On top, including children in research on the family-friendly city was considered to provide insufficient added value, given the wealth of studies on the child-friendly city.

The specific profile of urban families has been formed by engagement in paid employment of at least one caregiver because literature has shown that a central location is especially important for working families (see section 3.2.1). Therefore, this study focuses mainly on young urban professional parents (yupp's) as a target group. The term 'yupp's' was created after the 'yuppies' or 'yup's' (young urban professionals), who are referred to as gentrifiers of inner-urban neighbourhoods in the 1990s, have become parents (Boterman & Karsten, 2015). Yupp's like to stay in the city after having children, aiming to continue their career and urban lifestyle: gentrifiers with children (Karsten, 1998, 2003, 2014b). Yupp's are attracted to the city because of the opportunities to combine their pursuits in employment, culture and consumption and with the care for their children (Karsten, 2003). Therefore, yupp's have different lifestyles and values than 'traditional families' living in suburbs: they prefer proximity to urban amenities over a spacious house and backyard: instead, they use "*the whole city as their backyard*" (Drianda, 2018, p.2). However, yupp's are more locally oriented compared to yup's, increasing the significance of the neighbourhood in their daily lives (Karsten, 2003).

This research aims to support young people who would like to stay in the city after starting a family. Literature suggests that the challenges urban families face are often the greatest during the earlier stages of parenthood. In order to translate this focus into a concrete selection criterion, the age limits of the millennial generation have been applied: born between 1981 and 1996 (Dimock, 2019). However, generations do not have hard boundaries. Therefore, one participant who was born in 1979 was judged to still belong to the generation of millennials.

In general, a broad definition of ‘family’ is used: “*all households with cohabiting children*” (Boterman et al., 2012, p.697) to not only include ‘traditional families’, but also other types of families, such as single parents, gay couples or multiple generation families.

The exact participant profile, as included in appendix 3, is communicated as follows:

- Parent or caregiver of children of least one cohabiting child
- Age: from the millennial generation (born between 1981 and 1996). However, one or two years difference is not a problem, as long as the other criteria are met*
- At least one parent or caregiver with a paid job (yourself, your partner or both)
- Living within the ring road of Groningen
- All household compositions are welcome, so next to the ‘traditional family’ also single-parent families, multiple generation families, adoptive families or gay couples

By not specifying the age of the children, this study has created room to explore the needs of families with both young children and older children. The researcher has strived for a diverse group of participants with regard to gender, age, age of children, experience with parenthood, household composition, profession, neighbourhood and residential history. This richness in backgrounds was broadly pursued by the researcher to guarantee the generalizability of the results, but the researcher remained dependent on individuals’ willingness to participate.

4.1.2 Background characteristics of participants

Table 4.1 gives a brief overview of the background characteristics of the final selection of participants. An equal gender division as well as a diversity in length of residence has been achieved. Residential location is the most diverse characteristic: all participants live in a different neighbourhood. Less diverse are the age of participants (most are early millennials in their late 30s or early 40s) and their children (all participants except one have school-aged children of roughly between 5 and 10 years old). The least diverse characteristic is the neighbourhood of the school of the children, with six participants having children at the same school. Even though all of them live in a different neighbourhood, this might affect the dominant views on the safety of travel routes to school.

Not included in table 4.1 is that six participants have a ‘traditional’ family, while two are divorced or remarried. Six participants are homeowners, the others are tenants of (social) housing. One participant lives in an apartment, the others live in a single family home. All participants have a long residential history in the city of Groningen, with most living here since their student days and some even born and raised. Professional backgrounds vary from entrepreneur, nurse, social worker, data analyst or currently unemployed in two cases.

Participant number	Gender	Age	Age of partner	Age of becoming a parent	Number of children	Age of children (years)	Neighbourhood of residence	Neighbourhood of school children	Years lived in current home
1	Female	34	-	24	3	5,5, 9 and 10	Indische Buurt	Rivierenbuurt	5 months
2	Female	38	40	30	2	3 and 8	Tuinwijk	Rivierenbuurt	Almost 8
3	Male	39	-	30	2	6 and 9	Rivierenbuurt	Rivierenbuurt	3/3,5
4	Female	45	-	40	1	5	Oosterparkwijk	Rivierenbuurt	11
5	Male	43	-	35	2	5 and 8	Oosterpoortbuurt	Rivierenbuurt	7
6	Female	39	39	31	2	5 and 8	Laanhuizen	Rivierenbuurt	9
7	Male	38	-	29	2	6,5 and 9	De Hunze	Ebbingekwartier	6,5
8	Male	39	36*	35	2	1 month and almost 4	City centre	(not yet) City centre	4

Table 4.1: Background characteristics of the participant group

*The partner of participant 8 has joined the conversation halfway during the interview, which eventually resulted in interviewing two persons at the same time

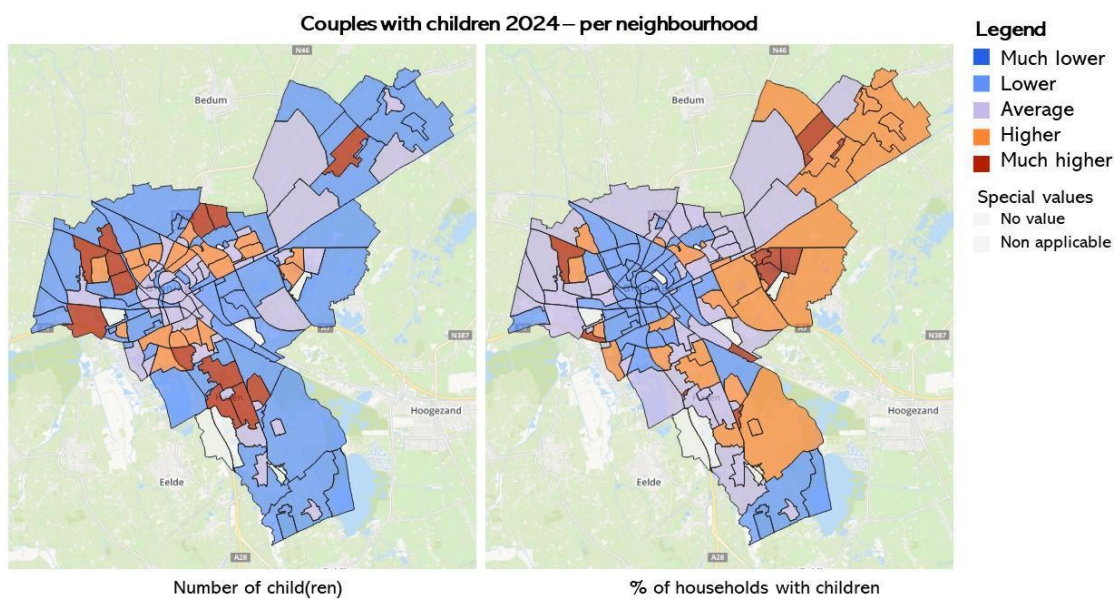
4.1.3 Geographical context

The research has applied a geographical selection criteria in living within the ring road of the city of the city of Groningen to specify a focus on the central urban areas and exclude neighbourhoods with a more suburban character. As shown in this section, (relatively) many families are currently located in at the edge of the city. This thesis aims to contribute to a balanced demography including an even distribution of families throughout the city and therefore focuses on areas that are currently less popular amongst families. Groningen is well-known for its high student population, which is mainly concentrated in the city centre surrounding areas. Many graduates leave these central areas after starting a family, but some might want to stay. This research aims to explore the conditions that attract or keep families in central parts of the city.

Demography

The city of Groningen accommodates relatively few households with children. Compared to similar sized municipalities in the Netherlands (Basismonitor Groningen, 2022a) and other regions in the Northern Netherlands (Basismonitor Groningen, 2022b), the city of Groningen counts the fewest percentage of families. The number of single households is projected to increase over the next decades, while the number of households with children will remain relatively constant (Basismonitor Groningen, 2023a). The strongest population growth in the municipality will take place in the age categories 25-39 years and 75 years or older (Basismonitor Groningen, 2023b), which includes a significant part of the current millennial population.

Figure 4.1 shows the spatial distribution of the number (left) and percentage (right) of households with children across neighbourhoods in the municipality of Groningen. The left figure shows that mainly the city centre and core urban neighbourhoods accommodate an average or lower than average number of families. However, the right figure indicates that the percentage of families is below average in even more urban neighbourhoods. An exception is the Sterrebosbuurt, a spacious district in the south with luxurious housing. Both figures show that most families live in suburban neighbourhoods at the edge of the city, such as Gravenburg, De Held and Reitdiephaven (in the northwest), De Wijert (in the south) or Beijum (in the northeast). Villages such as Haren, Middelbert or Ten Boer are most popular amongst families reflected by both a high number and percentage.

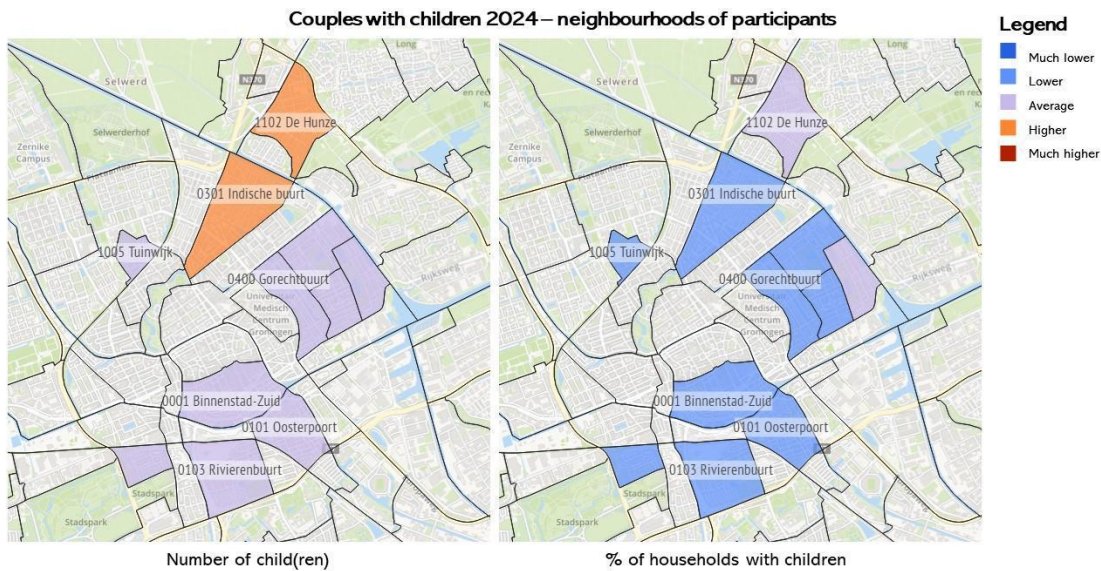


Source: OIS

© OpenStreetMap contributors

Figure 4.1: Households with children, relative to the municipal average (Source: Gemeente Groningen, 2024; text edited by the author for English translation)

Figure 4.2 presents the same numbers, but only shows the neighbourhoods where participants live. Most participants live in a neighbourhood with an average number of families (left figure - purple), but a below average percentage (right figure - blue). The Hunze and Indische buurt accommodate an above average number of families (left figure - orange), but the percentages are average (right figure - purple) respectively below average (right figure - blue).



Source: OIS

© OpenStreetMap contributors

Figure 4.2: Households with children, relative to the municipal average, in the neighbourhoods of participants (Source: Gemeente Groningen, 2024; text edited by the author for English translation)

Figure 4.3, with data from the Netherlands Statistic Agency (CBS), presents a similar image. The youngest population group (0-15 years), who usually live with parent(s) and/or caregiver(s), is concentrated at the edges of the city and villages surrounding Groningen, while the numbers in and around the city centre are considerably lower. The number of households with children (right map) show a largely similar pattern.

Key figures districts and neighbourhoods 2022

Subject: Population
Age groups
0 to 15 years
Municipalities: Groningen
Classification: Neighbourhoods

Subject: Population
Private households
Households with children
Municipalities: Groningen
Classification: Neighbourhoods

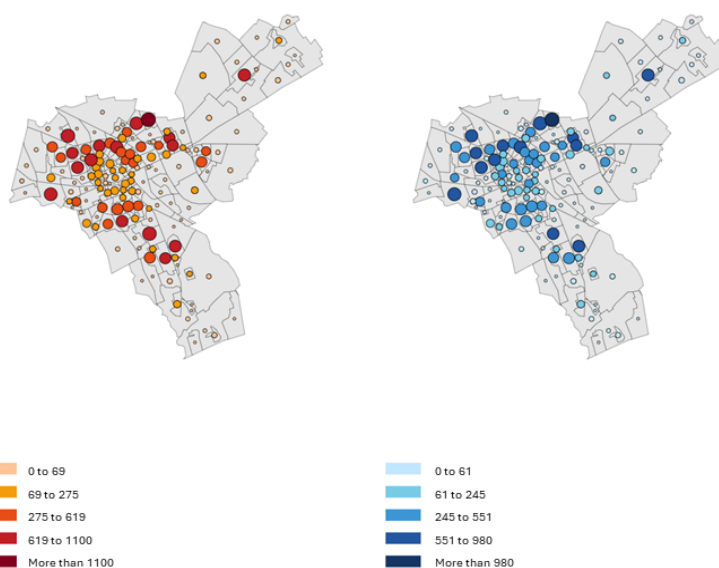


Figure 4.3: Population of Groningen 0-15 years (left) and household with children in Groningen (right) per neighbourhood, both in numbers (Source: CBS, 2024a; text edited by the author for English translation)

Municipal policy

The municipality of Groningen pays attention to children and families in various main policy documents, such as the Omgevingsvisie [Environmental vision], Woonvisie [Housing vision] and Uitvoeringsprogramma mooie wijken 2023 [Implementation Programme beautiful neighbourhoods 2023, the neighbourhood revitalization programme]. To the authors' knowledge, the municipality has not published policy documents specifically focused on children and families. Both the Environmental vision and neighbourhood revitalization programme stress the importance of equal opportunities for children and investing in the quality of education (Gemeente Groningen, 2021, 2023). The Environmental vision sets the objective of having a primary school within a distance of 1 km for each child in the municipality (Gemeente Groningen, 2021). The Housing vision aims to provide innovative and attractive ways of urban living for families (Gemeente Groningen, 2020), recognizing families' needs for sufficient space and a garden. The Housing Vision further states that families who used to exchange the city for a more spacious home in a more rural environment, are now looking for suitable housing in the city: 'urban living in the lee' (Gemeente Groningen, 2020). Besides, the Housing vision envisions an environment where children can freely play on the street, requiring a significant reduction of cars on the street and new forms of sustainable transportation.

4.2 Process of data collection

4.2.1 Recruitment process

A call (appendix 3) has been spread throughout the researcher's own social network and social media (Instagram, Facebook, LinkedIn). The call also included a link or QR-code where participants could directly sign-up for an interview by choosing a timeslot from the researchers' availability and indicating a preferred location. Besides, the researcher has reached out to many schools and child care centres within the selected area, first by sending emails and later spreading by physical flyers. The snowballing technique, by using participants' social networks, has been tried but was not successful. Due to limited contacts within the target population, the recruitment process was very challenging. In total, eight interviews have been conducted between the mid-March and mid-May 2024, with the majority in late March and early April.

4.2.2 Interviewing process

The duration of the interviews ranged from 45 minutes to one hour and 20 minutes, with average length of about one hour (as indicated in the call). All interviews were held in Dutch, the native language of both the participants and the researcher, which facilitated a smooth conversation and enabled participants to freely express themselves. Appendix 1 provides both the Dutch interview guide that was used and an English version. Three interviews were conducted online via Google Meet, while five were held in person. Physical locations included the participants' home (three times), the university and a café, depending on the participants' preferences.

As explained in section 4.1, participants were asked about their criteria for choosing housing and place

of residence. The first step was to brainstorm and name a number of criteria they would take or have taken into account in their former, current or future decision-making processes. These criteria were written on small memo cards (or an online equivalent) by the researcher. The second step (which was introduced together with the first step) was to rank these criteria from most important to least important. During in-person interviews, participants were able to move the cards themselves in order to define the ranking. During online interviews, participants would instruct the researcher to move the cards into their preferred order, as most participants did not have the programme used for digital memo cards (Miro) linked to their account. Therefore, the researcher applied extra checks to ensure that the order on the screen was correct.

In addition, participants were asked to rank a number of environmental factors already written on memo cards (or an online equivalent). Similar to their criteria list, participants were able to rank the cards themselves during in-person interviews, while the researcher asked the participants instructions about the order and applied extra checks during online interviews.

4.3 Data analysis

4.3.1 Coding

All interview transcripts have been coded using ATLAS.ti in order to make sense of the data. Coding refers to “*the processes of putting tags, names or labels against pieces of the data [...] in order to attach meanings to the pieces of data*” (Punch, 2014, p.173). After the coding process, thematic content analysis has been applied, as described by Braun & Clarke (2006) and Friese et al. (2018). Thematic analysis aims to find patterns in a dataset and interpret these patterns in order to attach meaning to the pieces of data (Braun & Clarke, 2006). Specifically, open coding (inductive approach) has been applied. Open coding uses labels (or codes) that involve an inference, rather than solely a description (Punch, 2014). It requires a level of abstraction and conceptualization that allows the researcher to find patterns, and aims to conceptualize the data for possible use in building theory. Instead of using an a priori coding scheme (Punch, 2014), the thematic analysis is data-driven: the data is coded without trying to fit into a pre-existing coding framework (Braun & Clarke, 2006; Friese et al., 2018). Codes have thus been developed during the analysis process, not in advance. Codes and code groups are not derived from the interview questions, but reflect the narratives of the participants (Braun & Clarke, 2006; Friese et al., 2018).

Appendix 4 provides a coding tree visualizing the codes, code groups and relationships between them. Appendix 5 provides an alphabetic overview of all codes with representative excerpts to provide transparency on the way in which the data has been coded.

4.3.2 Cards and rankings

After each interview, the physical memo cards have been digitized to ensure readability and all cards have been translated from Dutch to English. Subsequently, the criteria lists have been summarized into six overarching categories. This categorization is similar to the coding groups applied to the interview

transcripts. The results of this process are shown in appendix 6 and tables 5.1 and 5.2, in which a colour scheme visualises general trends. The rankings broadly indicate the most important criteria; however, several participants stressed that the overall picture is most valuable to them, rather than each criterion on its own: 'all boxes need to be ticked'.

The rankings of environmental factors are shown in appendix 7 and table 5.3 and 5.4. These factors partly overlap with the criteria lists discussed earlier, but some factors also evoked thoughts about issues participants did not think of themselves, but still found important (e.g. health).

With regard to shared places, there are different methods of calculating average rankings that slightly impact the results. Appendix 6a describes three possible methods. Appendix 6a and 7a provide insight into the differences in outcome between these methods for the criteria lists (table 5.2) and environmental factors (table 5.4).

The criteria lists (within the categories of table 5.1 and 5.2) and code groups within ATLAS.ti (appendix 4) are used as a framework for the presentation of results. The rankings of factors derived from the theoretical framework further enrich the discussion of findings.

4.3.2.1 Factors affecting the rankings

The rankings in both appendix 6 and 7 are heavily influenced by the choices and compromises involving participants' current housing situation. That does not mean that lower-ranked aspects are not considered important, but other aspects were implicitly prioritized (often related to location and distance to the city centre), by their choice to stay. Participants really cared about issues that are far from ideal (e.g. environmental problems or traffic safety), but this might not be adequately reflected in these rankings.

In the ranking of environmental factors based on the theoretical framework (appendix 7), 'Access to jobs and facilities' was originally listed as one factor, but has later been split up into 'Access to jobs' and 'Access to facilities', as some participants expressed that these had both a completely different meaning and value to them. The colour code of these two factors has remained the same throughout appendix 7 to show that these were originally presented together. In tables 5.3 and 5.4, they have been split. The two cases where they were not split up are later considered as a shared ranking of two different aspects.

Differences in ranking between appendix 6 and 7 may occur due differences in terminology, which leads to small though important differences in interpretation. For example, one participant expressed that he might have ranked 'health' higher had it said 'green space' instead of a broader and overarching term. Some participants also interpreted 'health' as living in proximity to healthcare facilities, instead of environmental issues as discussed in the theoretical framework, which makes it difficult to compare these rankings. Generally, the criteria lists in appendix 6 use more specific terms than the environmental factors in appendix 7. An explanation for this difference could be that the researcher aimed to use comprehensive terms (to not exclude any factors and reflect the variety of definitions,

while keeping the number of different factors limited), while participants interpreted those terms in a more specific way.

4.4 Ethical considerations

Performing research in an ethical way is very important in order to be trusted by both the public and the participants (Clifford et al., 2016), which adds to the legitimacy and validity of research. Therefore, the interviews started with a brief explanation of the purpose of the research and discussion of the content of the informed consent form (appendix 2), including the rights of participants during the interview (the 'in advance' section of the interview guide in appendix 1). Both the consent form and a shortened interview guide was shared in advance to give participants the opportunity to prepare any questions (but not required). As explicitly stated in advance, the participants gave permission for audio recording by proceeding with the interview. The recordings were made on the personal phone of the researcher and right after the interview moved to an encrypted hard drive until completion of the thesis. The anonymized transcripts are, in line with the consent form, only accessible to the researcher, its supervisor and second assessor. The participants have been guaranteed anonymity: any personal information that might reveal their identity remains confidential. For citations, gender, age and neighbourhood are used for context behind the quote, which is judged to not harm privacy.

5 Results

5.1 Criteria for choice of housing and place of residence

Table 5.1 and 5.2 show the main results of participants' criteria for choice of housing and place of residence. Appendix 6, applying the same colour scheme, provides a full overview of the individual criteria lists, including the ranking from most important (top) to least important (bottom). The criteria are summarized into six categories structuring the discussion of results from section 5.2 onwards. Table 5.1 presents the total number of times each category has been named, while table 5.2 depicts the average ranking of each category within the criteria lists.

The main trends in these tables are as follows. Criteria related to location of neighbourhood and logistics are dominating the lists (appendix 6). It is the only category named by every participant and often ranked in the upper ranges. Its average ranking is not the highest, but this number might be distorted by participating naming multiple criteria (both higher and lower ranked) within this category, as lower rankings (high values) highly impact the average. Looking more closely at the specific criteria (appendix 6), it appears that most criteria focus on facilities, whereas proximity to jobs is only named twice and generally lower ranked than facilities. Furthermore, half of the criteria related to housing (7 out of 15) have been named by one participant. Criteria related to housing, health (mainly green space) and social life are well distributed over the participants (six each), though the rankings vary. Criteria related to urbanity and child-friendliness, though the latter has the highest average ranking, are both only named twice.

Category	Frequency
Location of neighbourhood and logistics	22
Housing characteristics	15
Social life	9
Health	7
Urbanity	2
Child-friendliness	2

Table 5.1: The total frequency of each category within the criteria lists, in order

Category	Average ranking*	Number of participants included in the average ranking**
Child-friendliness	2.5	2
Health	2.58	6
Housing characteristics	2.79	6
Location of neighbourhood and logistics	3.1	8
Social life	3.5	6
Urbanity	3.5	2

Table 5.2: The average ranking of category within the criteria lists, in order (the lower the value, the higher the average ranking)

**There are different ways of calculating the average rankings due to shared places. These do not impact the order, only the values (appendix 6a). The values are rounded to two decimal places.*

***If a participant did not name a criteria within a category, he/she has not been included into the average ranking of that category.*

5.1.1 Ranking of environmental factors

Table 5.3 and 5.4 show the main results of the ranking of environmental factors derived from the theoretical framework. Appendix 7, applying the same colour scheme, provides a full table of individual rankings, from most important (top) to least important (bottom). Table 5.3 presents the number of times each factor has been ranked on a (shared) first place, while table 5.4 depicts the average ranking of each factor.

The main trends in these tables are as follows. Similar to the criteria lists, factors related to location and logistics are often ranked in the upper ranges, although multiple similar terms have been used which might have influenced the rankings (see section 4.3.2.1). Central location/proximity has both the highest number of (shared) first place rankings and highest average ranking. When access to jobs and access to facilities are split up (see section 4.3.2.1), access to jobs is ranked significantly lower than access to facilities. Despite two (shared) first place rankings, affordable housing has the most divergent ranking (appendix 7), reflecting the different individual financial situations. Health, accessibility and child-friendliness (though the latter has a relatively high average ranking, but only one (shared) first place ranking) are usually found in the middle ranges. Social opportunities and access to jobs are overall lowest ranked, with no (shared) first place rankings.

Factor	Number of (shared) first place rankings
Central location/proximity	6
Access to facilities	2
Affordable housing	2
Health	2
Accessibility	1
Child-friendliness	1
Access to jobs	0
Social opportunities*	0

**Shortened version of: opportunities to meet neighbours/people on the street)*

Table 5.3: The number of (shared) first place rankings for each factor, in order

Factor	Average ranking**
Central location/proximity	1.34
Child-friendliness	2.5
Access to facilities	2.63
Accessibility	3.14
Health	3.25
Affordable housing	3.63
Social opportunities*	4
Access to jobs	4.5

*Shortened version of: opportunities to meet neighbours/people on the street)

**There are different ways of calculating the average rankings due to shared places. These have a slight impact on the results (appendix 7a). The values are rounded to two decimal places.

Table 5.4: The average ranking of each factor, in order (the lower the value, the higher the average ranking)

5.2 Location of the neighbourhood: all needs at hand

Criteria related to the location of the neighbourhood and logistics dominate the criteria lists (table 5.1). This section discusses the locational needs, wishes and preferences of urban families from two perspectives: 1) proximity to facilities and 2) logistics of daily life and employment.

5.2.1 Proximity to facilities

The availability of facilities at close proximity was often named as the biggest advantage of urban living, with all participants expressing positive comments. Access to facilities was explicitly related to the distance to the city centre, where most facilities are concentrated. The high value attached to location is also reflected in both the criteria lists and ranking of environmental factors (section 5.1). The most important daily facilities were supermarkets, shops and schools or childcare centres. Furthermore, participants highly valued living in close proximity to leisure opportunities, such as nature areas (e.g. Kardingge or Appèlbergen), cultural and sports facilities and cycling infrastructure. Urban green spaces - whether on the local scale or a larger urban park (e.g. Stadspark or Noorderplantsoen) - were important places for all participants and their families. It has not been explicitly stated why a particular park was preferred, but most participants tend to choose the nearest one or a park in their own neighbourhood, next to casual comments that a particular park was on their route or not. Frequency of visiting varied from daily or multiple times a week for local green spaces to weekly for larger urban parks and natural areas. For most participants, proximity to parks and green spaces has become more important during parenthood, especially in the early stages. Besides, proximity to healthcare facilities such as hospitals was highly valued, especially for participants with specific health issues.

The main reasons why proximity to daily facilities is highly valued include a more enjoyable travel experience and more flexibility in daily life. Accessing facilities by foot or bike was highly valued, besides convenience and time saving considerations. Some participants really disliked driving, while

others do not possess a car or a driving license. The latter was often an intentional choice, but short distances to facilities reduced the need to drive. In the city centre, walking distances facilitate short trips with children to the market or supermarket. Living near the city centre enabled other participants to combine practical purposes (e.g. grocery shopping at the market) with a fun trip for children (e.g. by receiving a piece of cheese from a market vendor), enhancing their family time. One participant compared the impact of short distances and a central location on daily life to a neighbourhood at the edge of the city:

“It is also a beautiful neighbourhood and green and much more spacious [...] but there you have, then you're back to those facilities. Look, you also have a different life, whereas here you do everything by foot, there you are much more likely to get into the car for shopping or something. And yes, you probably have a bigger garden, which is also nice if you have children that they then have a very big garden or then you can sit very nicely in the garden all the time. Only yeah, then you have more of a kind of life at a distance and that you use the car or the bicycle then.” [Dad, 39, City centre]

Even participant 6, who is planning to leave the city, still explicitly considered having a supermarket at cycling distance, as she really disliked driving. She mentioned that short distances and the availability of facilities such as a supermarket or park at neighbourhood level are especially valuable in early parenthood, as cycling with children is not possible at a very young age.

Beyond daily facilities, participants highly enjoy living near the diversity of options the city centre offers, including a variety of shops and cafés, museums, festivals and the Forum. The Forum was especially valued for shared entertainment between caregivers and children, as *“not just a place to get books, but it is also a space to play. In general, visiting the city with children is also a kind of adventure that you are experiencing together.”* [Mom, 39, Laanhuizen]. Participant 8 added that the Forum was especially valuable in winter for entertainment outside the home, in particular during the Christmas season. Participants visited their preferred places with children as well, even though most places are not specifically focused on children (except for the Forum). Yet, the company of children led to slight changes in caregivers' choices, for example in types of restaurants and cafés, as places offering toys and space for childrens' play reduce stress. Moreover, pubs are not attended with children and generally less frequently as a result of parenthood. As children grow older, they might also exert some influence on the choice of places, for example by expressing preferences for a specific café. Besides commercial spaces, participant 5 regretted the lack of public places to sit in the city centre. Even though the abundance of facilities in the city centre is highly valued, it was noted that creating multiple urban focal points, including an equal distribution of facilities throughout the city, would make the city as a whole more family-friendly.

Living in proximity to facilities also decreases the likelihood of leaving the city, despite the wish for a more spacious house and/or garden: *“We are used to the way we are doing things now, so you are actually looking for something you currently have. Maybe that is the case, and right now we really*

have everything nearby.” [Mom, 38, Tuinwijk]. Even participant 6 admitted that she was a bit nervous about not living close to facilities anymore. Living within reach of the school or their children was also an important reason why most participants stay in the city, but this might change as children grow older. This resulted in an additional requirement of living at cycle distance from the city for participant 6. For secondary education, most participants would like their children not to have to cycle long distances or travel by public transport, which will probably keep them near the city for years.

5.2.2 Logistics of daily life and employment

With regard to logistics, it was thought that the urban environment and availability of facilities would require much less organizational issues in daily life compared to a more rural location. Having a job in the city - even though access to jobs being ranked lowest (tables 5.3 and 5.4) - was considered to ease the logistics of daily life, for example by passing near multiple supermarkets on the route to work. Commuting time, related to accessibility, is an important factor as well: a long commute made the partner of participant 8 actually change jobs. It also constrained participant 6 in the choice of neighbourhood, as she needs to reach her clients within 30 minutes. Participant 8 mentioned that living in the city while working elsewhere helps to avoid traffic jams and preferred the southern part of the city centre over the northern part in terms of car accessibility. Even though car restricting measures in the city centre were praised, the ability to park in the same street was still highly valued: *“If they really close it down and they say ‘only buses are really allowed’, how will we get here then?”* [Mom, 36, City centre]

Five participants thought that living centrally positively impacted their ability to combine paid employment and family life and enhanced their work-life balance, besides non-spatial factors (e.g. type of job, flexible hours, working at home). For participant 3, a low commuting time meant spending one hour per day more with his children compared to working in a different city (when his children used to stay longer at the daycare facility). Participant 5 might have chosen a different type of job ‘in the middle of nowhere’ with less (diverse) job opportunities within reach. The possibility to cycle to work was highly valued and even considered as a luxury by participant 5. Besides location and time availability, a vibrant, green and spacious environment providing leisure opportunities positively affected the mental health of participants 4 and 7, enhancing their work-life balance. Similarly, enjoyable travel to grocery stores (enabled by walking distances in the city centre) improved work-life balance for participant 8. The remaining participants did not think their location and environment had much effect on work-life balance, or were not employed themselves. Any negative effects on work-life balance were related to the cost of housing (causing stress and requiring to work more hours during early parenthood), peak hour traffic delays (either in traffic jams or public transport, resulting in uncertainties), or difficulty with finding childcare with early opening hours (due to long commuting times). In all cases, these issues are currently less urgent (either the problem has been solved or the situation of the participant has changed).

On the other hand, five participants did not think that distribution of childcare and household tasks is affected by their location in any way. Participants 4 and 8 thought that the availability of facilities (such as supermarkets and childcare) nearby and grocery delivery services contributed to a more equal distribution. The majority of participants applied a more or less equal division between themselves and their partner. Although not made explicit, a low commuting time could have contributed to an equal division of tasks for two participants, but other cases show that task distribution does not depend on commuting time or even time availability. Instead, financial and career-related reasons and mutual agreements were dominant in this context. The partners of the two participants who are currently unemployed work many hours including a high commuting time, which results in a rather skewed distribution.

5.3 Housing preferences and requirements

The second most frequent category relates to the home itself (table 5.1). In this section, the housing needs, wishes and preferences of families are discussed from two perspectives: 1) spatial affordances: a spacious home in connection to green space and 2) financial affordability.

5.3.1 Spatial affordances: a spacious home in connection to green space

Most participants were generally satisfied with their current housing situation and therefore do not feel the need to move, even though it involves compromises. In most cases, a significant increase in both indoor and outdoor space is a requirement for moving, as mentioned in four criteria lists (appendix 6). Many participants felt the need to move out of their small apartments after starting a family or family expansion. Participant 1 might have postponed family expansion if they could stay in their former home which provided just enough space for one child. An ideal situation was often described as ‘this location, but a bit more space’, but it was also recognized that this might not be realistic due to the tight housing market. Right now, most participants compromise private space (beyond the ‘minimal requirements’ to accommodate a family) for a central location, as reflected in a discussion on the order of the criteria:

“We stay here because we find this [referring to proximity to the city centre and facilities] very important and therefore we settle for less. So you could say, we settle for less, if we are talking about the ideal picture, we would like to have that [referring to a larger home]. But we stay here because we have this [referring to proximity to the city centre and facilities] and apparently we are fine with the fact that we have a smaller garden and a less spacious home.”
[Mom, 38, Tuinwijk]

However, indoor space needs are dynamic, depending on life stage and the age of the children, which might result in different trade-offs later in life. For example, the criterion of floor space becomes more important as children grow older. ‘Sufficient space’ was explicitly considered as a subjective term by four participants, as it depends on housing typology, the way one uses their home, the age of children and on whether children are used to having their own room. The latter is reflected in an anecdote of

participants' 1 children wanting to sleep together every weekend after moving, as they used to share a room.

Besides indoor space, living on the ground floor was preferred for a direct connection to outdoor green space, which contributed to moving decisions. In some cases, the presence of a garden was a prerequisite for buying a home. Other reasons for moving from an apartment to a single family home include (noise) nuisance from upstairs neighbours and the lack of an elevator. The wish for more outdoor space has already motivated participant 6 to leave the city. However, they still want to live near the city, but their spatial range has slightly increased: a maximum of 30 minutes cycling distance to the city centre (compared to 15 minutes mentioned by other participants).

When asked if the criteria list and order in appendix 6 accurately reflected a priority for either location or housing characteristics, six participants confirmed a priority for location over housing. It was explained that one can exert less influence over the environment compared to a home, for example by participant 3: *"A home, that is just a collection of rooms, you can do whatever you want with that, but the neighbourhood, where you live, is a bit more difficult to mould"* [Dad, 39, Rivierenbuurt]. Participant 8 explained that housing and location are strongly related: *"Here you have the most beautiful houses, but that is also why it is the best place in the city"* [Dad, 39, City centre]. Participants 5 and 6 expressed that they value both sets of criteria equally and find the overall picture of all criteria most important.

5.3.2 Financial affordability

Financial affordability was named twice as a criterion (appendix 6). It was stressed that this functions as a precondition, unlike the other criteria. The divergent ranking in appendix 7 reflects the variety of individual financial situations. Differences between appendix 6 and 7 with regard to individuals' ranking of affordability result from a different financial situation right now compared to at the time of moving to their current home. Most participants have bought their current home before the peak in housing prices. Even though they might have more financial options now, most participants are not planning to move, either due to the tight housing market, being settled in their current neighbourhood, or a wish to live centrally.

Despite being quite satisfied with their own housing situation, some participants do worry about other families' ability to find affordable and suitable housing. Participants 4 and 6 noticed a recent rise in the number of families with multiple children stuck in small apartments in their neighbourhood, which trend co-occurred with the explosive rise in housing prices. Participant 7 is now more aware of the importance of affordable housing compared to buying his current home, mainly for the future of his children.

5.4 Social, spatial and institutional qualities of the neighbourhood

Besides housing and locational choices, many criteria referred to the socio-spatial qualities of the neighbourhood. This section covers criteria related to 1) health and green space, 2) social life, 3) child-

friendliness and 4) urbanity. Besides, section 5.4.5 discusses the institutional side, as indicated by experiences with participation in planning processes.

5.4.1 A healthy and green environment

Green space

All participants highly rated living near green spaces, which is reflected in six criteria lists and the second highest average ranking in table 5.2. It was explained that green spaces enhance both physical and mental health, by facilitating exercise and providing a feeling of relaxation: *“If I look in my garden and I have flowers and I see birds, insects, that gives a bit of, how do you say that, relaxation. [...] If I look outside during my free time and I see birds in my garden and I see trees, that makes me happy, yes”* [Dad, 38, De Hunze]. Green spaces in the neighbourhood were not only considered important for adults' health, but also children's health by facilitating outdoor play.

Besides, three participants recognized the effect of green spaces on health in terms of climate resilience, either by increasing water storage capacity or temperature control (both indoor and outdoor). The redevelopment of the Grote Markt, with trees providing shade and some breeze, was thought to make the square more pleasant to stay in. Several comparisons were drawn towards places with little green space (both in and beyond the city centre) that are considered unattractive, not only aesthetically but also due to the lack of shade. Trees and shade are important as walking is a common activity between caregivers and children, especially during early parenthood. Therefore, both the quantity and distribution of green spaces were considered essential for a family-friendly urban environment. Moreover, the ecological function of urban green spaces was raised. Participant 1 mentioned that even in highly urbanized neighbourhoods, façade gardens and butterfly bushes can be implemented to enhance biodiversity.

Environmental issues

The city of Groningen was not perceived as the healthiest place to live, but not the worst place either. On a very local scale, some pressing environmental issues were revealed. Participant 6 experienced noise nuisance due to ring road traffic (during prevailing westerly winds) and loud and late concerts and festivals in the Stadspark. Participant 5 lives very close to the train track and has experienced sleep issues due to noise and vibration and still suffers pollution from diesel trains in the form of high soot formation on the streets, windows and cars:

“You can clean it up, but within a week, there is such a layer of dirt, which cannot be healthy. I ignore that a bit, but somewhere in the back of my mind, I know that is not really kosher. [...] Hopefully we will experience the day that Arriva [train company] will ride hydrogen or electric trains, then we can get rid of the diesel. By then, the children have moved out, I guess.” [Dad, 43, Oosterpoortbuurt]

Participants 1, 3 and 7 live near the ring road, but admitted they were unsure of the effects on their health. As an exception, participant 2 explicitly included traffic emissions into her decision-making. For similar reasons, participant 7 thought that the removal of buses makes the city centre cleaner.

5.4.2 Social structure of the neighbourhood: community networks and demographic matter

5.4.2.1 Social ties with neighbours and community networks

Within the criteria related to social life, contact with neighbours was mentioned in three cases (appendix 6). Besides, opportunities to meet neighbours or people on the street are ranked second lowest (table 5.4). Nonetheless, social ties in the neighbourhood were highly valued. Social interaction with neighbours often takes place in front gardens or playgrounds, but also occasionally during informal community gatherings in a few cases. Participant 2 mentioned that a community garden performs a strong social function, both facilitating new encounters and strengthening existing ties. Some participants mainly have superficial contact with their neighbours, while others maintain deeper relationships of trust. Contact with neighbours was valued for various reasons: an inner desire for social interaction, combatting loneliness or the absence of family members nearby. Especially in the latter case, a stable circle of trustworthy people nearby that can help look after the children is valued. *“It takes a village to raise a child”* [Dad, 43, Oosterpoortbuurt], as his children are picked up from school by a neighbour every Monday, which allows both parents to work their preferred hours. In general, neighbours ‘showing interest in one another’ was valued, in contrast to previous experiences. This is exemplified by an anecdote of participant 6, in which the entire street spontaneously decided to say goodbye to neighbours who were leaving for three months on a trip throughout Europe. Besides direct neighbours, a baker is described as a binding factor in the neighbourhood:

“She knows everyone by name, is always in for a small talk and the contact she has with my children, is almost a reason to go to the bakery shop just for her, even if you do not need any bread. I find that really valuable. [...] We go there two or three times a week, so it matters a lot if you have great contact with someone like her and the trip to the bakery is just a kind of party.” [Mom, 39, Laanhuizen]

Participant 1, who recently changed neighbourhoods, gives less priority to contact with neighbours as her children are growing older, but still has close ties with neighbours they spend eight years with in the city centre. She describes how at the time, she reached out to her former neighbours after just having moved from Amsterdam to Groningen without a social network:

“And then I wrote a small welcoming/introduction card to all neighbours ‘Hi, we are new here, we have two small children etc.’. And in fact, I could never go outside normally without standing for half an hour chatting with lots of different neighbours, so that is also a disadvantage. We couldn’t bring those neighbours with us to this neighbourhood, but we still see them quite often and we still have contact with them. Because for my children, they are also a kind of trusted network, confidants. If there is something going on, they know, they can

always [go to one of them]. So yeah, I thought it was a big shame that I couldn't bring that here." [Mom, 34, Indische Buurt]

She still benefits from these relationships of trust, as reflected by an anecdote about losing her child due to a miscommunication. Fortunately, they reunited safely, but the fact that her daughter told her that if she could not find her mother, she would have gone to one of their former neighbours to call her, gave her a feeling of reassurance. However, most social contact is based on proximity: seven participants thought that contact with their neighbours would sharply reduce after moving or already experienced this. For participant 8, their central location is at the heart of their social life: 'other people like to come to us'.

In addition to this previous anecdote, participants 2 and 6 explicitly mentioned that trust in neighbours contribute to child-friendliness, for example by supervising each other's children or providing practical support. The availability of neighbours to look after the children or keep an eye on things led to a feeling of social safety and reassurance, e.g.:

"Recently my daughter was ill, she stayed at home and I needed to pick up my son from school and do other activities, and then I can just send a text message in the neighbourhood WhatsApp group [name child] is home alone, if something is going on, whose door can she ring?". And then I immediately get multiple responses that, so to speak, it is just possible for everyone who is at home. So I really like that idea, that you are indeed just really there for each other." [Mom, 39, Laanhuizen]

Participants 5 and 7 related contact with neighbours to the spatial structure of the neighbourhood. In particular, low-rise building were considered to promote social interaction:

"I would not want to live in an apartment complex, for example. Because that makes it more complex, the higher the buildings, the more anonymous the experience. [...] You do not run into each other anymore. There is just no reason for that." [Dad, 43, Oosterpoortbuurt]

Participant 7 added that contact with neighbours and feeling of social safety was especially valuable in their current life stage and also dependent on the age of children.

Impact of neighbourhood ties on moving behaviour

Four participants stated that maintaining contact would not be a decisive factor in their moving behaviour. Participant 4 explained that digital technologies reduced the need for proximity, while others did not maintain tight relationships with their neighbours. Subsequently, four participants do consider the social component in their decision-making processes. Three of them regretted that they cannot bring their current neighbours to another place. Participant 6 admitted being a bit nervous about not having direct neighbours and her children not being able to see their friends as easily as they used to. Leaving their neighbours behind did hurt, but the pain was eased a bit by the fact many friends and family have already left the city. Participant 2 acknowledged that mainly uncertainty about a new

social environment makes her most nervous about moving. A high degree of social connectedness (for both adults and children) and feeling of social safety in their current neighbourhood would be very difficult to leave behind. In general, family and friends living in Groningen decreased the likelihood of leaving the city.

5.4.2.2 Demographic composition of the neighbourhood

Within the criteria related to social life, the demographic composition of the neighbourhood was mentioned seven times (appendix 6). However, this term has been explained and interpreted differently: on the one hand, it was related to the image of the neighbourhood, while other participants referred to a diverse population in the neighbourhood. Therefore, a distinction has been made in this section.

Image of the neighbourhood

Three participants referred to the 'type of people' living in the neighbourhood, which affects their perception of social safety of the neighbourhood. Descriptions range from 'not wanting to live amongst FC-Groningen folk' to 'looking after each other'. Participant 7 mentioned issues such as vandalism, demolition and graffiti; on the other hand, participant 4 stressed that nuisance from neighbours also occurs in a smaller village, though it might be less likely. Participant 1 visited her new neighbourhood several times before deciding to move to check the kind of people that are hanging out on the street. However, later her perspective on the area has changed:

"I think the Bedumerweg is already quite a kind of raw area, a bit like the Amsterdam-Noord feeling, and then I was so ashamed of [thinking] that, which I do tell my husband and my best friend, like 'oh I am so ashamed that this is my only disadvantage'. Just as if I look down on that a bit or so. And then I changed my mind, just thinking differently, you know. [...] It is also good for the children, I already take them out of the neighbourhood to a different school, some people also find it a shame that others cycle out of the neighbourhood to a different school. But I find it really good that they also really get to experience that rawer side of society, so that is not just a safe bubble". [Mom, 34, Indische Buurt]

The image of the neighbourhood already motivated her move to Groningen, as raising children in Amsterdam-North was described as a 'social experiment' she did not want to participate in: she would rather live in a very small home instead.

Three participants explicitly related social safety to the child-friendliness of the neighbourhood. Participants 1 and 8 have experienced drug nuisance whilst living in the city centre. In general the presence of junks did cause feelings of unsafety, but drug needles on the street led to concerns regarding young children unaware of potential danger. On the other hand, participant 8 compared drug needles to dog shit, which children also cannot touch. Participant 7 related social safety to socio-economic background: *"The educational level in the neighbourhood is secretly of importance to me, as*

this level tells something about what people are like and what their norms and values are and if my children will be safe among them." [Dad, 38, De Hunze]. Besides social safety, noise nuisance from neighbours, including students in the city centre, has affected residential choices and moving decisions of some participants and their neighbours.

Demographic diversity

Three participants expressed a wish for more diversity in their neighbourhood in terms of age, socio-economic background and ethnicity, as well as more contact between these population groups. Particularly, interaction with elderly, both with themselves or their children, was experienced positively by participants 1 and 8. Participant 3 thought that a diverse population positively impacts the social safety and atmosphere in the neighbourhood. While the presence of other families is valued for playmates (see section 5.4.3.3), participants 1, 2 and 5 did not prefer a neighbourhood dominated by families, e.g.:

"I abhor Vinex neighbourhoods. And actually I grew up with it, but just the fact that you're among just the same age group with young children. That is such a monoculture, I really would not survive that." [Dad, 43, Oosterpoortbuurt]

The wish for more contact between population groups mainly applies ethnic and socio-economic backgrounds, illustrated by the community garden example. Participant 2 noted that its users, mainly highly educated parents, are not representative of the overall neighbourhood population. However, the complexity of approaching people who tend to stay inside their home was recognized. Participant 1 touched upon the benefits of social and ethnic diversity for children:

"No, I think that you are maybe getting used to the dynamics a bit more, and that they see many different people. The school is mainly white, that is the only downside of this school. The inner city is also quite white, and that is what I really like about this neighbourhood, that they get a realistic view of society. They only experienced the multicultural society at swimming class, but because of this neighbourhood and the fact we now have a different route to school and cycle along all kinds of toko's, that makes me happy. Then I think, they see a little bit more of the world, however small that world may be. Because the inputs are different from a village I think." [Mom, 34, Indische Buurt]

Furthermore, she regrets the lack of interaction between urbanites and residents from the province of Groningen: they just 'coexist'.

5.4.3 Child-friendliness

Terms referring to the child-friendliness of the neighbourhood were mentioned twice as criteria (table 5.1). Besides, child-friendliness was on average ranked as the second highest environmental factor (table 5.4), but appeared twice at the bottom as well (appendix 7). In this section, 'child-friendliness' is

explored from three perspectives: 1) Traffic safety, 2) Play spaces and 3) Presence of other families and playmates. However, child-friendliness also serves caregivers' needs, as adults' and childrens' needs are interrelated: *"I think [...] is really important for my children. And then it is automatically also important to me."* [Dad, 39, Rivierenbuurt].

5.4.3.1 Traffic safety

All participants pointed out traffic safety as an important aspect of child-friendliness. They want their children to safely play on the street and independently access playgrounds, without fear of being hit by a car. In six cases, participants' children were able to play on the street safely, whereas the children of participants 3 and 5 were more restricted in their freedom of movement. Participant 3 believed that this was a general consequence of living in a city, while participant 5 attributed it to local traffic conditions, as their street accommodates large volumes of traffic on a daily basis, despite being located in a residential zone. This was deeply regretted, especially in comparison to others:

"I recently took my oldest daughter to Haren, where she went to play with a friend. And when I came to pick her up, they were playing football and frisbee outside, simply on the street. Well, we just cannot do that. So that is a real loss. And it can also be specifically attributed to where we live, it is not necessarily the same in the entire city." [Dad, 43, Oosterpoortbuurt]

Traffic safety affecting childrens' outdoor play seems to be largely influenced by the type of street and local traffic conditions. Participants living on a low, mainly local traffic street (for example a dead end) were more confident to let their children play on the street or sidewalk than participants living along a main access road. For participant 3, a clearer distinction between the highway exit and the adjacent residential street led to a reduction of car traffic, positively impacting traffic safety.

Rather than the neighbourhood itself, the biggest issue is the lack of safe routes between different parts of the city, mainly on the route to school. Six participants live in a different neighbourhood than the school of their children, which is in five cases located near to the main station surrounded by busy and dangerous traffic. Therefore, these caregivers will need to accompany their children for longer than they would have in a different situation, which restricts childrens' independent mobility and increases the strain on their parents. In most cases, traffic safety concerns arise from the large number of cyclists resulting in chaotic situations, rather cars and other vehicles.

5.4.3.2 Play spaces

Play spaces were explicitly named twice in the criteria list (appendix 6), besides being mentioned a few times as important places. Participant 6 shared an anecdote of exploring the city in search of playgrounds with her children during covid:

"What I just told you about those playgrounds tour, then it is not just going to the playground, but 'we are going on an adventure, we are going to find a playground we do not know yet, and check out how that is'." [Mom, 39, Laanhuizen]

Playing opportunities for children near the home, whether in green space, playgrounds or just on the street, were considered highly important and included in moving decisions. Most participants were satisfied with play spaces in their neighbourhood, except for participant 3 who thought that the Rivierenbuurt was not built for childrens' play, but focused on cheap and quick mass production of housing as a post-war neighbourhood. The local school yard was mentioned as the only space where children can play in the neighbourhood, and adjacent neighbourhoods are currently inaccessible for children due to the ring road reconstruction: "*For children there is most lacking and while everything is nearby, there are barriers to get there, independently as a child*" [Dad, 39, Rivierenbuurt]. Urban green spaces were positively evaluated for play, but participant 1 mentioned that a small paddling pool for children (which are omnipresent in Amsterdam) would be a great addition to the Noorderplantsoen or Stadspark. Participant 8 positively discussed municipal policy allowing higher grass and preserving wildflowers in terms of childrens' play and interaction with nature, e.g. by plucking dandelions.

In contrast to most neighbourhoods, the city centre is currently considered inadequate for childrens' play. Participant 5 mentioned that play does not only take place on designated playgrounds with specifically designed equipment, but also on construction or public artworks. Participant 2 felt the compactness of the city centre leaves very little space to play, as well as new housing developments. Yet, participants 1 and 8, with experience of living in the city centre with children, were less negative about playing options. Even though the local playground might need an upgrade and is not always open, participant 8 mentioned that young children do not need a lot to be entertained: collecting chestnuts or making a snowman might be sufficient. Besides, participant 1 positively discussed the redevelopment plans of the Grote Markt: it is expected that the addition of fountains, benches and green spaces will invite play.

5.4.3.3 Presence of other families and playmates

Although five participants preferred a diverse population with regard to age and life stage (see section 5.4.2.2), the presence of other families was also valued, mainly as playmates for children. Participant 6 and 7 would have preferred more families and children to play with in their neighbourhood. The number of families in the neighbourhood of participant 6 has increased recently, whilst her children have almost outgrown the local playground. Participant 7 thought that families with children provide more 'buzz'. However, the lack of other families was not a reason to move for any participant. Context is highly important, as three participants did not regret the lack of playmates: either siblings were used to playing with one another, there was a significant age gap with other children in the neighbourhood or the participants' children were not old enough to attend primary school yet. In case of participant 1, the fact that her children had tight relationships contributed to a lower priority to the presence of other families.

5.4.4 Urbanity: urban identity and vibrancy

Most participants have a long urban history. Besides the participant selection criteria, living within the ring road was explicitly mentioned twice in the criteria lists, as well as 'urban feeling' or 'vibrant

neighbourhood' (appendix 6). Participants 1 and 6 drew comparisons to suburban neighbourhoods located outside the ring road such as Lewenborg or Corpus den Hoorn, which do offer relatively affordable and spacious housing including a garden, but 'feel too far away' or do not provide 'an urban feeling'.

These participants highly value some degree of liveliness in their neighbourhood. Participants 3 and 4 thought living in a village would result in boredom soon. Participant 1 finds it beneficial for her children to grow up 'somewhat globally' and get used to the 'buzz' and dynamics of the city in terms of traffic and diversity of people. Interestingly, participant 8 (born and raised in Groningen) mentioned the "village spirit" resulting from the compactness of the city, whereas the west of the country is considered 'too packed and too busy'.

Participant 5 stressed that vibrant neighbourhoods with a diverse population require compact housing with diverse typologies and price categories integrated on block level. He referred to "dull, mono Vinex suburbs" lacking diversity, which negatively impact liveability:

"That is related to the fact that those single family homes are all row houses or semi-attached with a small garden and car in front of the house, which can therefore only be rolled out in grasslands as factory-made. Yes, then you get such spread-out Vinex-like neighbourhoods lacking spatial quality, where the distances are too big, where everyone comes home at 7:00 PM and leaves again at 7:00 AM. For the rest, it is just dead. Then you have all the space, but there is no life. There is no residential quality, it is just a sort of spatial hotel, a place to stay at night, it is nothing more. And I find that especially in urban areas like we have here." [Dad, 43, Oosterpoortbuurt]

Participant 1 explicitly identified herself as a city dweller and makes choices based on an 'urban feeling', epitomized by the choice to rather move from Amsterdam to Groningen than Amstelveen. Despite not living in the city centre anymore after eight years, its facilities are still important in her daily life:

"It is a really beautiful building and I have a view on the Aakerk, so I have selected this dentist based on location. [...] You have such things in the city, so for the supermarket, you can go to the Korenbeurs, and I am thinking 'wow, everything is an experience'. So I do take those things into account. [...] I also just keep the dentist in the city centre now, I think, I am not going to a very local dull dentist around the corner or something." [Mom, 34, Indische Buurt]

5.4.5 Institutional qualities

This section discusses participants' experiences with participation in urban planning, which are not included in either table but are part of the interview guide (appendix 1).

Most participants did not actively participate in planning processes. Besides barriers of time investment and leaving children home alone, they possessed little knowledge of opportunities to become involved. Others mainly attended information meetings or participated in surveys to stay informed instead of aiming to influence outcomes. Participant 2 appreciated the opportunity to express an opinion on issues

such as the type of playing equipment or flower beds in the neighbourhood. Participants who did participate occasionally were generally more positive about the accessibility of opportunities and the extent to which citizen input is listened to compared to those who were not active. As an exception, participant 2 encountered barriers when trying to start a neighbourhood initiative:

“Yes, well, I have tried, but it is quite difficult. We have all these flowerbeds here in the neighbourhood, just trees and bushes, very boring, but children play there as well and there is really no biodiversity. So as a neighbourhood we are like, there could be other greenery that is more child-friendly, that they can play in, but which would also be really much better for nature. I did try, but I really got zero response. [...] Well, you have a community centre here and then again there is an idea committee. I e-mailed them, but never got anything back. And then it stops a bit, because the municipality is not entirely clear about where I should go if I wanted this. And then it already costs me too much energy, and I think, well, never mind, while actually a lot of people in the neighbourhood would really like it if we could tackle this. So it is unclear where we should go. The entrance is not very easy to find.” [Mom, 38, Tuinwijk]

Participant 4 - despite high faith in citizen involvement and bottom-up decision-making - thinks the current system of neighbourhood councils is not effective, as spots are assigned by chance instead of interest. She also stresses that citizens need to be consulted earlier:

“But I think for the public trade-offs of interests in the preliminary stage it is already important to involve citizens or residents, at an earlier stage. Because often now a certain train is already running and then suddenly citizens still have to be raked in, which I think is a bit of a crazy sequence. [...] I think that this is especially important when the plans are being drawn, also for the support base, because then you start talking to each other sooner and the oil slick also spreads because someone who has been involved from the start has talked about it with his family in the neighbourhood or with a neighbour.” [Mom, 45, Oosterparkwijk]

Furthermore, she thinks that involving diverse perspectives results in more progress and tailor-made solutions for complex issues.

5.5 Points of improvement: how to make the (inner) city more family-friendly?

Even though most participants were happy with their neighbourhoods and called them family-friendly, some improvement points were revealed with regard to mobility, accessibility, and inclusiveness from a broader perspective, especially in the city centre.

Accessibility of the city centre

Specifically in the context of Groningen, the struggle with accessibility of the city centre is twofold. The main issue is that the abundance of bikes parked on streets and narrow sidewalks form obstacles for strollers (besides elderly and persons in wheelchairs). As a result, caregivers and children are forced to

walk on the street, which results in unsafe situations. The municipality has addressed this problem by banning bicycle parking in most streets and requiring bike parking in underground storages. This policy has benefitted city centre residents, but increased barriers to access the city centre for participants living outside the city centre. Participant 6 mentioned that it was impossible to access underground bike storages for bikes with a children carriage, while longer walking distances led participant 2 to visit the city centre less frequently. In general, participants were less inclined to make small, spontaneous trips to the city centre with their children as a result of this policy due to ‘too much hustle’. Participant 8 explained his view on this dilemma as follows:

“And you know, back in the 1950s, the Grote Markt and the Vismarkt were just parking lots. And we think that's very crazy now, but recently we thought it was quite normal that you just put your bike there, and to also put that in a garage, yes that may not be so chill for people who live a bit further away, but it does improve the city.” [Dad, 39, City centre]

Despite mixed opinions, most participants understood why this policy has been implemented and recognized the challenge of keeping the city centre accessible and liveable for all population groups, not just families. The feasibility of making the city centre family-friendly was even questioned by participant 1 in the end:

“It is already quite a task to make the inner city for so many people who have to pass through it already a bit reasonable, so family-friendly: quite well, but inner city family-friendly, well, is that possible?” [Mom, 34, Indische Buurt]

Inclusiveness

In the city centre of Groningen, households with children are a small minority (see figure 4.1). Participant 1 felt that policymakers are inadequately aware of the specific needs of this group. Most activities for families and children only take place in residential neighbourhoods, which induces a feeling that family life is not supposed to take place in the city centre. She also regrets that there are no consultation clinics in the city centre, as it did not give her a chance to meet other city centre parents. This group is randomly distributed throughout the entire city, resulting in mixed experiences. After moving from Amsterdam to Groningen, she also encountered bias from the municipality on the appropriateness of raising children in a highly urbanized environment:

“When I wanted to accept my previous house in the city centre on [name street], there was a gentleman who lived somewhere in a village, Sauwerd or something like that. He called us personally to strongly advise us not to accept it, because it really wasn't child-friendly in his experience, in his provincial experience, you know, and yes, whereas beneath our house, there was just a small, yes, sort of, what do you call it, courtyard with all sorts of trees and even a swing and a bit further on there was a small playground, and I thought ‘well, I'm sorry, but in Amsterdam this was quite normal, you know?’ And why should there be a swing and a

playground if it's not child-friendly? But in his perception, from his point of view, he didn't think it was appropriate. And yes, I thought it was a bit doltish and also kind of cute, because yes, he meant well, but he almost just didn't want it to go ahead for that reason. He almost even thought it might be irresponsible. Then you just miss [diversity at the municipality], yes everyone obviously has a different mindset, different perspectives where they come from, but I just think that's a shame sometimes.” [Mom, 34, Indische Buurt]

Safe and pleasant routes

Municipal policies to improve pedestrian and cyclist safety were positively discussed, such as car restrictions in the city centre or cycling streets (streets that give priority to bikes, with one-way car traffic) on important routes to schools. Yet, there are still places that need to improve on traffic safety. Specific measures were suggested, such as speed bumps, safe crossings and a cyclist tunnel near a highway exit instead of ‘normal’ traffic lights. Besides physical safety, participant 2 felt that cycling routes towards new urban developments at the edge of the city are not socially safe, as they are deserted at night. Participant 8 mentioned that open and unsheltered roads are unpleasant for walking. For example, redirecting the route between the city centre and the Stadspark underneath the viaduct instead of on top (which will be a consequence of the railway area redevelopment) would be an improvement.

6 Discussion

6.1 Spatial needs and affordances of urban families

Widely supported by literature, **affordances related to location, such as proximity to facilities** are utilized by most participants, reflected by the priority given to logistical aspects. Examples such as passing several supermarkets on the route to work indicate application of trip chaining. Short commuting trips afforded caregivers more **flexibility and time to spend with children**, which matches findings of e.g. Lilius (2014) in Helsinki and Krishnamurthy & Ataol (2020) in Istanbul and Pune. Participants were very attached to proximity to facilities, especially their childrens' school, which resulted in other aspects (such as health, indoor space and child-friendliness) being compromised.

In addition, literature suggests that the urban environment - in contrast to the suburbs - potentially contributes to closing the gap between public and private life and thereby facilitates a more equal distribution of household and childcare tasks (Boterman & Karsten, 2015; Lilius, 2017; Drianda, 2018; Karsten, 1998). Even though an equal distribution of household and childcare tasks has been realized in most cases, the findings show inadequate and differentiated evidence with regard to the effect of urban location and commuting time.

Beyond time and efficiency reasons, it was found that short distances enabled actualization of **affordances of enjoyable travelling time**, by walking and cycling instead of driving, which enhanced experienced work-life balance. A compact urban design with facilities at walking distances was found especially valuable to families with very young children (toddler age) due to the interdependence of adults' and childrens' activity patterns in that age group (Ataol et al., 2022). Green space and trees - providing **affordances of shade, temperature control and increased aesthetic value** - also enhance experiences of spending time outdoors, even though there is still room for increasing affordances by a more even spatial distribution of green spaces throughout the city. These findings might suggest that green space also enhances adults' valuation of places, similar to the effect on children found by Broberg et al. (2013), even though this study does not provide statistical evidence.

A challenge to actualizing affordances of enjoyable walking experiences, especially **carefree strolling** (Krishnamurthy & Ataol, 2020) in the city centre, are narrow sidewalks full of obstacles (such as bikes) in combination with fast car traffic on the street, resulting in feelings of discomfort and unsafety. In this sense, the usage of strollers in the city centre can both constrain or enable affordances of smooth transportation of children (Clement & Waitt, 2018). Municipal policy addressing bicycle parking problems in the city centre has both positively and negatively impacted experienced affordances of accessibility.

Besides, short distances were found to contribute to utilizing **affordances of family bonding and relaxation** (Krishnamurthy & Ataol, 2020), as they enable combining childrens' and adults' activities (Ataol et al., 2022). For example, grocery shopping at the market was combined with a fun trip for children. Besides, playgrounds (especially with younger children) and urban parks were described as important settings for family time, providing similar affordances. The story of the playgrounds tour (section 5.4.3.2) illustrates how play spaces can widen the array of potential affordances for both children and caregivers, by using "the whole city as their backyard" (Drianda, 2018, p.2).

On the other hand, combining childrens' and adults' activities was not always a choice of actualizing positive affordances. Multiple participants felt the need to accompany their children to school because of dangerous traffic conditions, which limits **affordances of flexibility** for caregivers **and independent mobility** for children. This finding also shows that interdependency of activity patterns between adults and children does not only depend on age (Ataol et al., 2022), but also on the specific context, in this case the traffic situation on the route to school. Besides, traffic safety concerns in the neighbourhood itself limited childrens' possibilities to actualize affordances of independently exploring the city, negatively affecting their wellbeing (Krishnamurthy & Ataol, 2020). This finding underlines the importance of safe streets. Specific measures were suggested - including speed bumps (Ataol et al., 2023), safe intersections (Krishnamurthy & Ataol, 2020; Ataol et al., 2023) and traffic calming (Karsten, 2003, 2007, 2009, 2017; Karsten & van Vliet, 2006a; Gür, 2019; Ataol et al., 2023) - that promote potential affordances of childrens' independent mobility and play, while reducing caregivers' concerns. However, traffic safety concerns in itself were found insufficient to motivate caregivers to leave the city, in contrast to Karsten (2007) and Lilius (2014).

Beyond logistical affordances and enjoyable travel, a central location in proximity to facilities enabled actualizing **affordances of an urban lifestyle**, as expressed by many comments of highly valuing the abundance of opportunities the city offers (in line with e.g. Karsten, 1998, 2009, 2014a; Lilius, 2014; Gür, 2019; Krishnamurthy, 2019). Most participants have a long urban history, growing up in the city of Groningen or living here since their student days (about 20 years ago). The majority are not planning to leave the city in the near future, even though neighbourhoods have changed frequently. The high value attached to proximity in combination with a long urban history indicates a mix of an 'urban identity' and being used to the logistical benefits, which together might explain why these families stay in the city. Indeed, participants' current residential choices and criteria lists (appendix 6) reflect their priority to proximity to urban facilities over a spacious house and backyard (Drianda, 2018) and their attachment to an urban lifestyle (Brun & Fagnani, 1994). Even though many participants wished for a more spacious home and garden, they would not move to an area with a low facility level that affords more indoor and outdoor space at a lower price. However, **sufficient indoor space** is still an essential affordance (Karsten, 2017; Van Kessel & De Bont, 2023a), reflected by participants' moving behaviour after becoming parents. Affordances related to housing and urban lifestyle are dynamic, as it

was expressed that these priorities might shift as children grow older. Besides indoor space and location, housing choices are also guided by **financial affordability** (Karsten, 1998; Gür, 2019; Israel & Warner, 2008; Lilius, 2014, 2017; Silverman et al., 2019; Warner & Rukus, 2013a). The variety in priority given to affordable housing (appendix 7) reflects the diversity of individual financial situations. The selection of participants is not likely to represent the meaning of affordable housing for a larger group, which is further indicated by concerns expressed of other families with less financial means being stuck in small apartments.

In addition, living near urban facilities also provides potential **affordances of 'life stage blending'**, i.e. continuing the same (urban) lifestyle after having children (Lilius, 2014) in the transition from yup's to yupp's. Changes in preferred places as a result of parenthood were either the result of childrens' negotiation as reported by Ataol et al. (2023), or decisions of caregivers themselves. Furthermore, literature supposes that the neighbourhood becomes a more significant part in the daily lives of yupp's as compared to yup's (Karsten, 2003; Lilius, 2017). This is partly confirmed by the emphasis put on proximity to daily facilities, green spaces and play spaces. Similar to Lilius (2017)'s study on new parents on family leave, the neighbourhood seems to be the most important territory during early parenthood. However, as the city centre was an important place for all participants, their lives do not solely take place in their neighbourhood. Instead, the daily activity space of urban parents indeed seems to depend on the age of their children.

In addition to facilities, **affordances of social interaction and diversity of population** are part of the urban lifestyle. Vibrancy and life on the street ('buzz') were important reasons to live in the city. The presence of other people might provide similar affordances to caregivers as to children, for whom the presence of other people increases the likelihood of positively evaluating a place (Broberg et al., 2013; Aziz & Said, 2015). Even though this study does not provide statistical evidence, the continuous presence of people on the street might explain caregivers' preference for urban living. However, noise nuisance (for example from neighbours) has motivated relocation in the city. Playgrounds also offer affordances of social interaction to both children and caregivers (Van Kessel & De Bont, 2023a; Ataol et al., 2022; Krishnamurthy & Ataol, 2020; Karsten & van Vliet, 2006a), besides contact with neighbours on the street, sidewalk or, most commonly, in the front yard. This confirms that public meeting spaces are vital for strong community networks (Van Kessel & De Bont, 2023a; Ataol et al., 2022; Gür, 2019). In this regard, it was stressed that high-rise buildings create less spontaneous encounters with neighbours, whereas low-rise buildings contributed to a feeling of social safety (Van Kessel & De Bont, 2023a). Whereas caregivers' needs for social interaction are afforded in most cases, some neighbourhoods provide less potential affordances of socialization for children, indicated by comments on the lack of playmates. There seems to be a fine balance between affordances provided by the presence of other families and affordances of a diverse population (Karsten, 2009), as living in a

‘monotonous’ suburban neighbourhood dominated by families was not preferred either. For this group, a diverse neighbourhood has become part of their urban identity (Karsten, 2007; Boterman & Karsten, 2015). In this context, it was mentioned that promoting a diversity of housing typologies and densities may create diverse and vibrant communities (Israel & Warner, 2008; Gür, 2019).

Besides affordances of social interaction, strong community networks provide **affordances of social safety and trust** (Karsten, 2003; Krishnamurthy & Ataol, 2020; Ataol et al., 2022; Silverman et al., 2019). A social safety net of neighbours, creating a feeling of reassurance, was described as a vital element of a child-friendly neighbourhood. In line with Dawkins (2006) and Karsten (2007), affordances of strong community networks and trust seems to retain families in the neighbourhood to some degree, at least by raising the mental barriers of leaving.

Preferences regarding the demographic structure of the neighbourhood reflect the duality in the literature. On the one hand, trust in neighbours and tight-knit social networks providing affordances of social safety are formed through resemblance in level of education and norms and values. On the other hand, diversity of age, ethnicity, and socio-economic background is appreciated as opposed to monotony. This shows the need for the ‘right’ balance between like-minded people and ‘the other citizen’ in a family-friendly city (Karsten, 2009, 2017). Social safety concerns originated from caregivers’ perception of the socioeconomic and demographic characteristics of the neighbourhood (Krishnamurthy & Ataol, 2020). With regard to fear of exposure to negative cultures (Aziz & Said, 2015), the ‘type of people’ and level of education were used as indicators of the appropriateness of the neighbourhood for raising children. On the other hand, issues of drug nuisance in the city centre raised some concerns, but did not incentivize moves. In contrast to dominant societal beliefs (Drianda, 2018), it was mentioned that children benefit from experiencing the ‘rawer side of society’.

Outdoor play spaces and green spaces provide **affordances of health**, for example by promoting childrens’ outdoor physical activity (Krishnamurthy & Ataol, 2020; Ataol et al., 2023; Israel & Warner, 2008). Besides ‘traditional’ playgrounds with specifically designed equipment, high quality ‘playable’ public spaces (Buschmann & Coletta, 2009; Van Kessel & De Bont, 2023a) provide important and different affordances. It was mentioned that children can play anywhere in both grey and green environments. Interaction with nature might even result in shaped affordances (e.g. collecting chestnuts or plucking dandelions). This suggests that children observe potential affordances in terms of **functionality and playability** instead of aesthetic features (Gibson, 1979; Aziz & Said, 2015; Krishnamurthy & Ataol, 2020). Even though traditional playgrounds are still considered important, these findings show that childrens’ play in the city should not be confined to these areas. Instead, the whole city should be regarded as a potential playground for children, which requires a different perspective on the environment (Aziz & Said, 2015). Playgrounds designed from adults’ perspectives can result in boredom if they do not facilitate preferred activities (Ataol et al., 2023), limiting childrens’

potential affordances. Therefore, instead of creating specific spaces for children (often without knowledge of what children really want), the focus should be on including children in urban public space (Karsten, 2002).

Furthermore, green spaces alone were explicitly considered to contribute to affordances of (perceived) health, complementing research by Broberg et al. (2013) on child-friendliness. Besides physical activity, green spaces enhance mental health by providing **affordances of relaxation**, complementary to a large body of literature on the restorative effect of nature (Aziz & Said, 2015; Broberg et al., 2013). Besides, the health benefits of climate resilience were recognized, most importantly by providing temperature control and shade in the urban environment (Van Kessel & De Bont, 2023a). Therefore, family-friendly housing includes a direct connection to outdoor green space, reflected by participants' preferences for either a garden or living on the ground floor.

In the context of health, a lack of opportunities for outdoor play and green space did not motivate caregivers to leave the city, in contrast to Karsten & van Vliet (2006a), but was part of the reason for changing neighbourhoods in some cases (beyond reasons such as indoor space). Similarly, air pollution has affected participants' choice of neighbourhood at most, but was usually not explicitly considered and is in itself insufficient to incentivize another move.

Lastly, **affordances of participation** are not optimally utilized yet. Literature suggests that including families in planning processes results in better affording their needs (Israel & Warner, 2008; Warner & Rukus, 2013a; Gür, 2019). However, participation efforts do not guarantee satisfactory results. Affordances of information provision are well evaluated, but affecting spatial outcomes poses challenges. Nonetheless, the fact that most participants did not actively participate shows unfulfilled potential to afford families' needs by a better representation of children and families in urban planning and design (Krishnamurthy, 2019; Israel & Warner, 2008). The lack of knowledge on opportunities to participate suggests many unperceived potential affordances, which can only be actualized if the target group is reached more effectively.

6.2 Revisiting the definition of the family-friendly city

In order to refine the definition of the 'family-friendly city', this thesis builds on seven main dimensions of existing definitions (table 3.1), namely affordable housing, safety, schools and childcare, green spaces and play spaces, healthy environment, social life and children as stakeholders. These are called "foundations" in figure 6.1. The "building blocks" in the middle section consist of a selection of affordances included in the theoretical framework (section 3.2) that corresponded with participants' narratives. Elements that are solely based on the empirical findings are placed on top, to visualize what this thesis adds to our understanding of a family-friendly city, besides confirming existing definitions.

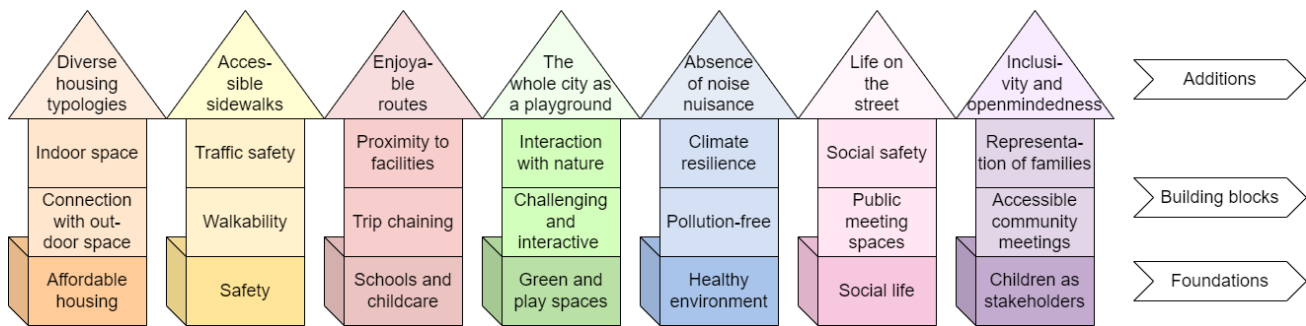


Figure 6.1: A visual representation of the elements building the definition of the family-friendly city

Based on the elements above that provide a variety of affordances to families, the following definition is composed, with the additional findings of this study in bold:

*A family-friendly city is a city that affords financially affordable, **diverse** and spacious housing in an environment that is green, healthy, physically and socially safe, **accessible**, **vibrant**, walkable and compact, with short distances to facilities. A family-friendly urban environment recognizes childrens' affordances of play and independent mobility **in any public space**, and includes families' diverse needs in decision-making processes **from an inclusive and open-minded perspective**.*

7 Conclusion

7.1 Revisiting the research questions

This thesis has explored how the needs of young families in urban environments with regard to housing and living environment can be afforded in a sustainable and inclusive way, addressing. The needs of urban families have been studied empirically by conducting semi-structured interviews with parents or caregivers in the city of Groningen. Subsequently, the findings were analysed through the concept of affordances, resulting in a refined definition of the ‘family-friendly city’.

The conclusion is structured as follows. The following three paragraphs address each sub question in the order as presented in section 1.4. Next, the rationale behind the proposed definition is explained. The last paragraph provides a general conclusion attempting to answer the main research question.

The main **needs** of young families in the urban environment include the following. Proximity to facilities and a limited commuting time facilitate an efficient daily activity pattern, enjoyable travel experiences, time for family bonding, and the possibility to maintain an urban lifestyle, all enhancing work-life balance. Affordable housing that provides sufficient indoor space (though subjective) as well as a direct connection to outdoor green space are essential. Urban green spaces on neighbourhood and city level promote both mental and physical health of children and adults. Green spaces provide shade and temperature control, which invites play and spending family time outdoors. To realize the vision of the whole city as a potential playground, traffic safety - both in and between neighbourhoods - is essential for childrens’ independent mobility. A green and safe environment provides affordances of health, play, physical activity, relaxation, social interaction and interaction with nature for both caregivers and children. Besides physical safety, tight community networks and low-rise structures contribute to a socially safe environment. A vibrant neighbourhood balances demographic diversity as part of the urban lifestyle and similarity providing a sense of social safety and playmates for children.

Residential **choices and trade-offs** of urban families mainly involve prioritizing proximity to facilities and a central location over indoor and outdoor space, even though space requirements have informed moves as a result of parenthood. Each individual makes different compromises regarding these aspects. In particular, the school of children is important in explaining caregivers’ attachment to the city. A strong preference for a central location is likely to be a combination of being used to proximity and the presence of an urban identity, both a result of a long urban history. In most cases, a preference for proximity to the city centre was stronger than environmental concerns, including traffic safety, lack of play spaces and pollution. A sense of social safety as a result of strong community networks leads to some attachment to the neighbourhood, but is not a decisive factor either.

Barriers in affording the needs of young families in the urban environment include the following. Financial affordability restricts most families in realizing their ideal housing situation, in line with global challenges of housing affordability in cities (Lilius, 2014, 2017; Silverman et al., 2019; Van den Berg, 2013). However, most participants could afford a home meeting their minimum space requirements in contrast to other families, indicating an unrepresentative selection with regard to financial capacity. Despite the widespread availability of facilities, consultation clinics in the city centre are missed. Environmental issues, such as noise nuisance or pollution, negatively impact health. Drug nuisance in the city centre raises concerns, but the urban environment is still considered appropriate for raising children. On the physical safety side, chaotic traffic situations limits childrens' independent mobility and access to play spaces. Besides, the city centre is perceived to provide insufficient opportunities for play. Lastly, the accessibility of the city centre is both limited and enhanced by bicycle parking restrictions: it improves walking and strolling experiences, but complicates visiting the city centre by bike (especially with children).

In response to the knowledge gap, this thesis has proposed a refined **definition of the family-friendly city** (section 6.2), which aims to include both childrens' and adults' needs. Short distances to facilities imply an equal distribution throughout the city and accessibility by foot or bike, providing an enjoyable travel experience given the environment is green and safe. Community networks and public meeting spaces contribute to a vibrant and socially safe environment. Recognizing childrens' affordances in any public space means viewing the entire city as a potential playground. Therefore, the urban environment needs to be walkable, compact, accessible and physically and socially safe. Furthermore, a vibrant community accommodates a diversity of population and housing typologies. Financially affordable housing with sufficient indoor and outdoor space is especially important for families. As families have diverse and dynamic needs, they should be included in decision-making processes with an open-minded and inclusive perspective to prevent misconceptions of what a "child-friendly" or "family-friendly" city means.

In general, the city of Groningen was perceived as quite family-friendly, even though the accessibility of the city centre is under pressure in various ways. Compromises on traffic safety or environmental issues might be acceptable now, but these local issues need to be addressed to keep the city liveable for families in the long run. This thesis argues that most issues arise because families and children are not adequately included and represented in urban planning. Therefore, this thesis advocates for **a more inclusive approach to spatial planning** that recognizes families as a target group with specific needs and wishes, but also benefits the general urban population. This approach includes increasing the distribution of facilities and spatial quality throughout the city, addressing accessibility issues and providing affordable housing, green spaces, traffic safety and a healthy environment. The full policy advice (appendix 8) is based on the findings in Groningen but many aspects are more widely applicable.

In general, a better representation of families in urban planning and design holds large potential for meeting their needs. This requires efforts from both the government and families themselves, but the visibility of participatory activities and communication strategies addressing families as a target group could be improved.

7.2 Limitations and suggestions for future research

This study partially covers the knowledge gap on the family-friendly city (Drianda, 2018; Lilius, 2014). Input has been collected from parents or caregivers living in the city of Groningen, which provides unique insights on what ‘family-friendly’ means in the daily life of urban families. Furthermore, to the authors’ knowledge, it is the first study conducted in the city of Groningen focusing specifically on family-friendliness.

Even though this study gathered rich data enabling meaningful conclusions for the international debate, this study is based on a relatively low number of participants (8) due to recruitment challenges.

Therefore, limited conclusions can be drawn from the quantitative data as presented in tables 5.1-5.4. The small sample size is mainly thought to impact the representativeness of the findings on housing affordability, as individual financial situations highly vary. Furthermore, some findings are highly based on the local context of Groningen or the neighbourhoods of participants (e.g. environmental issues, traffic safety or accessibility of the city centre). The author aimed to be transparent in cases where this impacts generalizability. Due to the sole use of qualitative methods and the small participant group, this study only provides anecdotal evidence with regard to families’ decision-making. Future research could employ a larger number of interviews supported by surveys for additional evidence on the factors that influence families’ decision-making processes.

The location of the interviews (all inside) resulted in a general, but rather limited image. Future research could employ outdoor walking interviews, in which participants introduce the researcher to places that are important to them (in the city or their neighbourhood) and the challenges they face in daily life. This would provide more complete, unique and visual insights based on real-life experiences. Another option to get more insight in families’ daily activity patterns is the use of time-space diaries, as applied by for example Lilius (2017). These methods would provide richer insights, but also require more preparation and a different recruitment approach, which was not considered feasible in this study.

The sole focus on interviewing parents or caregivers involves a risk of bias. Firstly, the perspective of the municipality has not been included, beyond what was written in policy documents (limited to what the researcher was aware of). Therefore, insight on the ways in which the municipality is already trying to afford families’ needs is limited. Secondly, childrens’ interests have been represented by their caregivers. Including children may result in a different image, as children and adults perceive the environment differently (Aziz & Said, 2015). Therefore, future research could also include the perspectives of the government and children, next to parents or caregivers.

Despite the lengthy interviews, some aspects have not been addressed in the depth that would have been optimal in hindsight. Examples include the effect of proximity on frequently visited places or the effect of the division of household tasks on the activities performed in the urban environment (only the reverse relationship has been addressed). These issues could receive more specific attention in future research.

For tables 5.2 and 5.4, it has been chosen to calculate average rankings. Usually, the median ranking would be a better alternative as this measure is less impacted by high values, but the high number of shared rankings would make this arbitrary.

With regard to the spatial scope, this study focused on large parts of the city of Groningen to provide a general view on the meaning of 'family-friendliness'. The results indicated that most room for improvement lies in the city centre. Therefore, future research could specifically focus on the city centre in order to develop more concrete planning and design suggestions. Another interesting topic for future research but beyond the scope of this study is the spatial and social effects of the increasing number of urban families and therefore changing demographic balance in inner-urban neighbourhoods, as the relationship between families and cities is two-directional (Lilius, 2014, 2017; Boterman & Karsten, 2015). Future studies can enhance the knowledge on family-friendly urban environments from this two-directional perspective.

References

- Ataol, Ö., Krishnamurthy, S., Druta, O. & van Wesemael, P. (2022). Towards inclusive urban environments for infants and toddlers: Assessing four urban neighbourhoods in Istanbul with mothers. *Children & Society*, 36, 1177–1193. <https://doi.org/10.1111/chso.12566>
- Ataol, Ö., Krishnamurthy, S., Druta, O., & van Wesemael, P. (2023). Co-generating urban knowledge with children in Istanbul: Children as urban investigators and problem solvers. *Children, Youth and Environments*, 33(1), 1- 24. <https://muse.jhu.edu/journal/850>
- Aziz, N. F., & Said, I. (2015). Outdoor environments as children's play spaces: Playground affordances. *Play and recreation, health and wellbeing*, 9, 87-108.
- Basismonitor Groningen (2022a). *Huishoudens met kinderen, Groningen vergeleken met andere middelgrote gemeenten*. Retrieved on 11-3-2024 from <https://basismonitor-groningen.nl/standvangroningen/bevolking/>
- Basismonitor Groningen (2022b). *Huishoudens met kinderen, Groningen vergeleken met de regio*. Retrieved on 11-3-2024 from <https://basismonitor-groningen.nl/standvangroningen/bevolking/>
- Basismonitor Groningen (2023a). *Prognose huishoudens naar type, aantallen*. Retrieved on 11-3-2024 from <https://basismonitor-groningen.nl/standvangroningen/bevolking/>
- Basismonitor Groningen (2023b). *Prognose naar leeftijd, 2022-2042*. Retrieved on 11-3-2024 from <https://basismonitor-groningen.nl/standvangroningen/bevolking/>
- Basismonitor Groningen (2024). *Huishoudens naar type*. Retrieved on 11-3-2024 from <https://basismonitor-groningen.nl/standvangroningen/bevolking/>
- Boterman, W. R. (2012). Residential Mobility of Urban Middle Classes in the Field of Parenthood. *Environment and Planning A: Economy and Space*, 44(10), 2397-2412. <https://doi.org/10.1068/a444558>
- Boterman, W., & Karsten, L. (2015). De opmars van het stadsgezin. In F. van Dam (editor), *De stad: magneet, roltrap en spons* (blz. 118-127). PBL (Planbureau voor de Leefomgeving)

<https://hdl.handle.net/11245/1.497596>

Boterman, W. R., Karsten, L., & Musterd, S. (2010). Gentrifiers Settling Down? Patterns and Trends of Residential Location of Middle-Class Families in Amsterdam. *Housing Studies*, 25(5), 693-714.

<https://doi.org/10.1080/02673037.2010.483586>

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp0630a>

Broberg, A., Kyttä, M., & Fagerholm, N. (2013). Child-friendly urban structures: Bullerby revisited. *Journal of Environmental Psychology*, 35, 110–120.

<https://doi.org/10.1016/j.jenvp.2013.06.001>

Brun, J., & Fagnani, J. (1994). Lifestyles and Locational Choices—Trade-offs and Compromises: A Case-study of Middle-class Couples Living in the Ile-de-France Region. *Urban Studies*, 31(6), 921-934. <https://doi.org/10.1080/00420989420080751>

Buschmann, K., & Coletta, C. (2009). The call of the city: Using design methods to attract families. *Journal of Business Strategy*, 30(2/3), 21-27. <https://doi.org/10.1108/02756660910942436>

CBS (2024a). *Kerncijfers wijken en buurten 2023*. Retrieved on 11-3-2024 from

<https://opendata.cbs.nl/#/CBS/nl/dataset/85618NED/map?dl=96D81&ts=1710149497607>

Clement, S., & Waitt, G. (2018). Pram mobilities: affordances and atmospheres that assemble childhood and motherhood on-the-move. *Children's Geographies*, 16(3), 252–265.

<https://doi.org/10.1080/14733285.2018.1432849>

Clifford, N., Cope, M., Gillespie, T. & French, S. (2016). *Key methods in geography*. Third edition. London: SAGE.

Couzy, M. (2017, July 15). Gezinnen met jonge kinderen verlaten Amsterdam. *Het Parool*. Retrieved on 22-11-2023 from <https://www.parool.nl/nieuws/gezinnen-met-jonge-kinderen-verlaten-amsterdam>

Cushing, D. F. (2016). Youth Master Plans as Potential Roadmaps to Creating Child- and Youth-friendly Cities. *Planning Practice & Research*, 31(2), 154-173.

<https://doi.org/10.1080/02697459.2015.1110472>

- Dawkins, C. J. (2006). Are Social Networks the Ties that Bind Families to Neighborhoods? *Housing Studies*, 21(6), 867-881. <https://doi.org/10.1080/02673030600917776>
- Dimock, M. (2019, January 17). *Defining generations: Where Millennials end and Generation Z begins*. Retrieved on 11-6-2024 from <https://www.pewresearch.org/short-reads/2019/01/17/where-millennials-end-and-generation-z-begins/>
- Drianda, R. P. (2018). Exploring the Notion of the Family Friendly City. IOP Conference Series: Earth and Environmental Science, 158, 012004. <https://doi.org/10.1088/1755-1315/158/1/012004>
- Friese, S., Soratto, J., & Pires, D. (2018). Carrying out a computer-aided thematic content analysis with ATLAS.ti. *MMG Working Paper*, (18-02).
- Gemeente Groningen (2020). *Woonvisie gemeente Groningen - Een thuis voor iedereen*. Available at: <https://gemeente.groningen.nl/woonvisie>
- Gemeente Groningen (2021). *Omgevingsvisie 'Levende Ruimte'*. Available via: <https://gemeente.groningen.nl/omgevingsvisie-levende-ruimte>
- Gemeente Groningen (2023). *Uitvoeringsprogramma Mooie Wijken 2023*. Available at: <https://gemeente.groningen.nl/groninger-wijkvernieuwing>
- Gemeente Groningen (2024). *Gronometer*. Retrieved on 11-3-2024 from <https://groningen.buurtmonitor.nl/>
- Gemeente Groningen (no date). *Jouw Grote Markt*. Retrieved on 12-6-2024 from <https://ruimtevoorjou.groningen.nl/grote-markt-2023>
- Gibson, J. (1977). The theory of affordances. In R. E. S. J. Bransford (Ed.), *Perceiving, acting, and knowing: Toward an ecological psychology* (pp. 67-82). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Gür, M. (2019). Inversion of urban transformation approach in Turkey into family-friendly transformation. *Journal of Housing and the Built Environment*, 34(3), 735-767.

<https://doi.org/10.1007/s10901-019-09657-z>

Israel, E., & Warner, M. (2008). Planning for family friendly communities. PAS Memo Washington, DC: American Planning Association

Karsten, L. (1998). Growing Up in Amsterdam: Differentiation and Segregation in Children's Daily Lives. *Urban Studies*, 35(3), 565-581. <https://doi.org/10.1080/0042098984916>

Karsten, L. (2002). Mapping Childhood in Amsterdam: The spatial and social construction of children's domains in the city. *Tijdschrift Voor Economische En Sociale Geografie*, 93(3), 231-241. <https://doi.org/10.1111/1467-9663.00199>

Karsten, L. (2003). Family Gentrifiers: Challenging the City as a Place Simultaneously to Build a Career and to Raise Children. *Urban Studies*, 40(12), 2573-2584. <https://doi.org/10.1080/0042098032000136228>

Karsten, L. (2005). It all used to be better? Different generations on continuity and change in urban children's daily use of space. *Children's Geographies*, 3(3), 275-290. <https://doi.org/10.1080/14733280500352912>

Karsten, L. (2007). Housing as a Way of Life: Towards an Understanding of Middle-Class Families' Preference for an Urban Residential Location. *Housing Studies*, 22(1), 83-98. <https://doi.org/10.1080/02673030601024630>

Karsten, L. (2009). From a top-down to a bottom-up urban discourse: (Re) constructing the city in a family-inclusive way. *Journal of Housing and the Built Environment*, 24(3), 317-329. <https://doi.org/10.1007/s10901-009-9145-1>

Karsten, L. (2014a). De Stad 3.2, of hoe gezinnen de stad opnieuw uitvinden. *Stedebouw & ruimtelijke ordening*, 95(3), 10-16. <https://hdl.handle.net/11245/1.429163>

Karsten, L. (2014b). From Yuppies to Yupps: Family Gentrifiers Consuming Spaces and Re-inventing Cities. *Tijdschrift Voor Economische En Sociale Geografie*, 105(2), 175-188. <https://doi.org/10.1111/tesg.12055>

Karsten, L. (2017, September 7). *Six Features of Family Friendly City*. The European Network of Child

Friendly City. Retrieved on 17-1-2024 from <https://www.childinthecity.org/2017/09/07/six-features-of-family-friendly-planning/>

Krishnamurthy, S. (2019). Reclaiming spaces: Child inclusive urban design. *Cities & Health*, 3(1-2), 86-98. <https://doi.org/10.1080/23748834.2019.1586327>

Krishnamurthy, S., & Atao, Ö. (2020). *Supporting Urban Childhoods: Observations on Caregiver Use of Public Spaces from Pune (IN) and Istanbul (TR)*. Bernard van Leer Foundation. <https://bernardvanleer.org/publicationsreports/supporting-urban-childhoods/>

Kyttä, M. (2002). Affordances of children's environments in the context of cities, small towns, suburbs and rural villages in Finland and Belarus. *Journal of environmental psychology*, 22(1-2), 109-123. <https://doi.org/10.1006/jevp.2001.0249>

Kytta, M. (2003). Children in outdoor contexts: Affordances and independent mobility in the assessment of environmental child friendliness. *Doctoral Thesis, Helsinki University of Technology*.

Kyttä, M., Oliver, M., Ikeda, E., Ahmadi, E., Omiya, I., & Laatikainen, T. (2018). Children as urbanites: mapping the affordances and behavior settings of urban environments for Finnish and Japanese children. *Children's Geographies*, 16(3), 319–332. <https://doi.org/10.1080/14733285.2018.1453923>

Lia Karsten & Willem van Vliet (2006a). Children in the City: Reclaiming the Street. *Children Youth and Environments*, 16(1), 151-167. Arts & Sciences X.

Lia Karsten & Willem van Vliet (2006b). Increasing Children's Freedom of Movement: Introduction. *Children Youth and Environments*, 16(1), 69-73. Arts & Sciences X.

Lilius, J. (2014). Is There Room for Families in the Inner City? Life-Stage Blenders Challenging Planning. *Housing Studies*, 29(6), 843-861. <https://doi.org/10.1080/02673037.2014.905673>

Lilius, J. (2017). Urban space in the everyday lives of mothers and fathers on family leave in Helsinki. *European Urban and Regional Studies*, 24(1), 104-118. <https://doi.org/10.1177/0969776415619662>

- Othman, S., & Said, I. (2012). Affordances of Cul-de-sac in Urban Neighborhoods as Play Spaces for Middle Childhood Children. *Procedia - Social and Behavioral Sciences*, 38, 184–194.
<https://doi.org/10.1016/j.sbspro.2012.03.339>
- Pozzi, G., Pigni, F., & Vitari, C. (2014). Affordance theory in the IS discipline: A review and synthesis of the literature. In *AMCIS 2014 Proceedings*.
- Punch, K.F. (2014). *Introduction to Social Research: quantitative and qualitative approaches*. 3rd edition. Thousand Oakes, CA: Sage Publications Ltd.
- Raymond, C. M., Kyttä, M., & Stedman, R. (2017). Sense of place, fast and slow: The potential contributions of affordance theory to sense of place. *Frontiers in psychology*, 8, 285227.
<https://doi.org/10.3389/fpsyg.2017.01674>
- Rijksoverheid (no date). *900.000 nieuwe woningen om aan groeiende vraag te voldoen*. Retrieved on 14-1-2024 from <https://www.rijksoverheid.nl/onderwerpen/volkshuisvesting/nieuwe-woningen>
- Rukus, J., & Warner, M. E. (2013). Crime rates and collective efficacy: The role of family friendly planning. *Cities*, 31, 37-46. <https://doi.org/10.1016/j.cities.2012.09.006>
- Silverman, R. M., Taylor Jr, H. L., Yin, L., Miller, C., & Buggs, P. (2019). There goes our family friendly neighborhood: Residents' perceptions of institutionally driven inner-city revitalization in Buffalo, NY. *Journal of Community Practice*, 27(2), 168-187.
- Swisher, R., Sweet, S., & Moen, P. (2004). The Family-Friendly Community and Its Life Course Fit for Dual-Earner Couples. *Journal of Marriage and Family*, 66(2), 281-292.
<https://doi.org/10.1111/j.1741-3737.2004.00020.x>
- UNICEF (2012). The state of the world's children 2012. <https://doi.org/10.18356/ff6fb82e-en>
- Van Den Berg, M. (2013). City children and genderfied neighbourhoods: the new generation as urban regeneration strategy. *International Journal of Urban and Regional Research*, 37(2), 523-536.
- Van Kessel, W. & De Bont, A. (2023a). *Als steden gezinsvriendelijk zouden zijn*. Urhahn | stedenbouw & strategie. <https://www.urhahn.com/gezinsvriendelijke-stad/#pdf-als-steden-gezinsvriendelijk-zouden-zijn/1/>

Van Kessel, W. & De Bont, A. (2023b, November 14). *Gezinnen zijn de kanariepieten van de stad*.

Retrieved on 22-11-2023 from <https://www.gebiedsontwikkeling.nu/artikelen/gezinnen-zijn-de-kanariepieten-van-de-stad/>

Volkoff, O. & Strong, D. M. (2017). Affordance theory and how to use it in IS research. In *The Routledge companion to management information systems* (pp. 232-245). Routledge.

Warner, M. E., & Baran-Rees, R. (2012). The economic importance of families with children. *Issue Brief: Cornell University Department of City and Regional Planning, NY*.

Warner, M. E., & Rukus, J. (2013a). Planning for family friendly communities: Motivators, barriers and benefits, Planning Across Generations project directed by Mildred Warner, Cornell University, Ithaca, NY, 2013. https://labs.aap.cornell.edu/sites/aap-labs/files/2022-09/Warner%26Rukus_2013.pdf

Warner, M. E., & Rukus, J. (2013b). Planners' Role in Creating Family-Friendly Communities: Action, Participation and Resistance. *Journal of Urban Affairs*, 35(5), 627-644.
<https://doi.org/10.1111/juaf.12014>

Appendix 1: Interview guide

English

In advance

1. Thank you so much for taking the time for this interview!
2. Short explanation of the purpose of the research [what makes cities a good place to live for families]
 - a. My thesis is about the family-friendly city, and I try to find out what exactly makes the city a good place to live for families and a good environment for children to grow up, or how this could be improved
 - b. This implies that you can approach all questions with your family in mind: both you as parent(s) and your child(ren). The aim of this research is to find out what makes the best places for families as a whole.
3. Asking permission for recording + discussing the consent form and rights of the participants
 - a. Participation is voluntary and the results will be published anonymously
 - b. If there is any question you are not comfortable with, you are not obliged to answer
 - c. You have the right to withdraw from the interview at any time without giving a reason
 - d. Do you have any questions about the consent form?
4. Asking if the participant has any questions or comments before starting the interview

Start recording the interview

Opening questions

1. Can you shortly introduce yourself?
 - a. Age
 - b. Place or residence / neighbourhood (if not already known)
 - c. Profession
 - d. Household composition
 - i. Number of children
 - ii. Age of children
 - iii. Type of family
 - e. When / at what age did you start a family?
 - f. Housing tenure (renter / homeowner)
2. Residential / moving history
 - a. For how long have you been living in your current neighbourhood or house?
 - b. For how long have you been living in this city?
 - c. Do you have any plans of moving (or a desire to) in the near future, or would you like to stay where you are now for longer?

Main questions

Preferences with regards to housing/residential environment

1. What are the main reasons that you live in the place where you currently live?
2. What would your ideal residential location for your family be, when there would be no restrictions?
3. What are, according to you, the main advantages and disadvantages of urban living for families?
4. Do you consider the city as a favourable place to live for families, or do you think a suburb, small town or the countryside would be more suitable for families?

- a. What are the reasons you favor one over the other?
 - b. Have you ever considered switching your current place of residence to a less urban environment, and what made you decide to stay here or do you desire to leave?
5. To what extent do you feel the urban environment is part of your identity?

Needs with regards to housing/residential environment

1. What are your main criteria when it comes to choosing a place to live?
→ *write these down on cards*
2. Could you rank these criteria in order of importance for your family?
 - a. Why did you choose this order?
 - b. Do you attach more value to the characteristics of the house itself, or the location and the environment within which the house is situated?
3. How did you experience the transition to parenthood in your home and residential environment at the time?
 - a. If you look back, are there aspects related to your house/residential environment that you would have wished differently?

Assessing the urban environment

1. Could you evaluate the following aspects in your neighbourhood/this city? [already written on memo cards]

In grey = not mentioned unless the participant asks for more explanation with regard to a certain aspect

- Central location / proximity
- Access to jobs and facilities*
 - Childcare
 - Schools
 - Shops
 - Leisure activities (sports, cultural and recreational facilities)

** this aspect has later been split up into 'Access to jobs' and 'Access to facilities', as some participants expressed that both the meaning and value of these factors were completely different for them*

- Accessibility
 - Walking and cycling infrastructure
 - Public transport
 - Bicycle parking
- Child-friendliness
 - Walkability
 - Traffic safety / safe routes to schools and play spaces
 - Availability of play spaces (e.g. playgrounds, parks, green spaces)
- Housing affordability
- Opportunities to interact with neighbours/other people on the street
 - Public spaces (sidewalks, public squares, parks, green spaces, urban furniture)
 - At facilities such as childcare/schools/shops
- Health
 - Pollution
 - Heavy loads of car traffic
 - Climate resilience

2. Could you rank these aspects in order of importance for you as a family?
→ *cards (written down in advance)*
 - a. Why did you choose this order?
3. Which places in the city are most important to you as a family? [places that are regularly visited or hold value in a different way]
 - a. Frequency of visiting
 - b. Company (alone/with partner/with children)
 - c. Accessibility
4. [if the participant has been living in the city for a long time] how has becoming a family influenced the places you visit regularly and the value you attach to those places?

Social networks in the neighbourhood

1. How would you describe your contact with neighbours?
2. Do you feel like there are many other families living near you?
 - a. Do you value being surrounded by people that are like you, or do you prefer a diverse neighbourhood?
3. How important are local social networks/neighbourhood contacts for you?
4. For how long have you known your most important social contacts in the city?
5. If you would move, do you think you would maintain the majority of your social network in this neighbourhood?
 - a. If having moved recently / planning to move: has your social network been a determining factor in your moving decisions?
 - b. If not having moved recently: do you think your social network would influence your choice of location / prevent you from moving over large distances?

Combining career and family life

1. What type of job do you and your partner (if applicable) have?
 - a. If yes: how many hours do you (both) work?
 - b. How do you commute to work, and how long does that take on average?
 - c. If applicable: how many days a week do you work from home?
 - i. What are your reasons to work from home with regards to having children?
2. How would you describe the division of household and caring tasks between you and your partner with regards to your employment activities?
 - a. To what extent does your current residential location/the urban environment influence this division?
3. To what extent does your current residential location/the urban environment influence your ability to combine a paid job with caring for children?
4. Are you happy with your current work-life balance?
 - a. To what extent does your current residential location/the urban environment influence this balance?
5. Do you have any struggles in combining your job with having children?
 - a. What helps you to relieve stress in such instances?

Participation and urban planning

1. Do you feel like urban planning sufficiently takes into account the needs of families in this city?
2. Do you think it is important that families have a voice in urban planning?

1. Do you feel like families are well-represented in urban planning?
3. Do you feel like you have a say in what is going on in your neighbourhood?
 - a. Have you ever participated in urban planning participation processes? (e.g. surveys, community meetings)
4. Do you think urban planning participatory processes are accessible enough for families, or is there room for improvement?
 - a. If certain things are changed [e.g. times of meetings, availability of childcare], do you think you would participate (more often) ?
5. What is, in your eyes, the most important issue that urban planning needs to work on in order to create a more friendly-family city?

Closing questions

1. Is there anything that we haven't discussed yet, that you think is relevant for my research? Or is there anything you would like to come back to and elaborate on more?
2. Do you have any questions or comments for me?
3. Do you know anyone who would be willing to do an interview with me?
4. What did you think of this interview?
 - a. Content
 - b. Formulation of questions (understandable language)
 - c. Length
5. Thanks again for your time!

Dutch

Voorafgaand aan het interview

1. Heel erg bedankt dat u de tijd heeft genomen voor dit interview!
2. Korte uitleg van het doel van het onderzoek
 - a. Mijn scriptie gaat over de gezinsvriendelijke stad, en ik probeer uit te zoeken wat de stad precies maakt tot een fijne plek om te wonen voor gezinnen en een goed milieu voor kinderen om op te groeien, of hoe dit verbeterd zou kunnen worden.
 - b. Dit betekent dat u alle vragen kan beantwoorden met uw gezin in het achterhoofd. Dat gaat zowel over u als ouder(s) als uw kinderen. Het doel van dit onderzoek is namelijk om te onderzoeken wat de beste plekken zijn voor gezinnen als geheel.
3. Toestemming vragen om het interview op te nemen + toestemmingsformulier en rechten van deelnemers bespreken
 - a. Deelname is vrijwillig en de resultaten zullen anoniem gepubliceerd worden
 - b. U bent niet verplicht om alle vragen te beantwoorden als u zich daar niet comfortabel bij voelt
 - c. U heeft het recht om zich op elk moment terug te trekken van het interview zonder reden te geven
 - d. Heeft u nog vragen over het toestemmingsformulier?
4. Heeft u nog andere vragen of opmerkingen voor het interview begint?

Opname aanzetten

Openingsvragen

1. Kunt u uzelf kort voorstellen?
 - a. Leeftijd
 - b. Woonplek/buurt (als nog niet bekend)

- c. Beroep
 - d. Huishoudenssamenstelling
 - i. Aantal kinderen
 - ii. Leeftijd van kinderen
 - iii. Type gezin
 - e. Wanneer / op welke leeftijd bent u met een gezin begonnen?
 - f. Huurder of woningeigenaar
2. Woon- en verhuisgeschiedenis
- a. Hoelang woont u al in uw huidige buurt of huis?
 - b. Hoelang woont u al in deze stad?
 - c. Heeft u verhuisplannen, of een wens om te verhuizen, in de nabije toekomst, of zou u graag langer willen blijven wonen op uw huidige plek?

Hoofdvragen

Voorkeuren met betrekking tot wonen en omgeving

1. Wat zijn de hoofdredenen waarom u woont op de plek waar u momenteel woont?
2. Wat zou uw ideale woonlocatie voor uw gezin zijn, wanneer er geen beperkingen zouden zijn?
3. Wat zijn volgens u de belangrijkste voor- en nadelen van het wonen in de stad voor gezinnen?
4. Beschouwt u de stad als een gunstige plek om te wonen voor gezinnen, of denkt u dat een buitenwijk, kleine plaats of het platteland geschikter zou zijn voor gezinnen?
 - a. Wat zijn de redenen dat u het een boven het ander verkiest?
 - b. Heeft u ooit overwogen om uw huidige woonplek te switchen voor een minder stedelijke omgeving, en wat maakte dat u besloot hier te blijven, of zou u graag ergens anders willen wonen?
5. In hoeverre voelt de stad als deel van uw identiteit?

Behoeften met betrekking tot woning en locatie

1. Wat zijn uw belangrijkste criteria bij het kiezen van een plek om te wonen?
→ *deze op briefjes schrijven*
2. Kunt u deze criteria rankschikken op volgorde van belangrijkheid voor uw gezin?
 - a. Waarom heeft u deze volgorde gekozen?
 - b. Hecht u meer waarde aan de kenmerken van het huis zelf, of de locatie en de omgeving waarin het huis ligt?
3. Hoe heeft u de overgang naar het ouderschap ervaren in uw toenmalige huis en woonomgeving?
 - a. Als u terugkijkt, zijn er aspecten gerelateerd aan uw huis/woonomgeving die u graag anders had gezien?

Beoordelen van de stedelijke omgeving

1. Kunt u de volgende aspecten in uw buurt/deze stad evalueren? [al op briefjes geschreven]
Grijs = niet benoemd tenzij een deelnemer vraagt om meer uitleg/toelichting bij een bepaald aspect
 - a. Centrale locatie / nabijheid
 - b. Toegang tot banen en faciliteiten*
 - i. Dagelijkse voorzieningen
 - ii. Kinderopvang
 - iii. Kwaliteit van scholen
 - iv. Winkels
 - v. Vrijtijdsbesteding (zowel voor ouders als kinderen)
 1. Sport, cultuur, recreatie

** Dit aspect is later opgesplit in 'Toegang tot banen' en 'Toegang tot faciliteiten', aangezien sommige deelnemers aangegeven hadden dat deze twee een hele andere betekenis en waarde voor hen hadden*

- c. Bereikbaarheid
 - i. Wandel- en fietsnetwerken
 - ii. Openbaar vervoer
 - iii. Fietsparkeerplekken
 - d. Kindvriendelijkheid van de omgeving, bijvoorbeeld met betrekking tot (verkeers)veiligheid
 - i. Voetgangsvriendelijkheid & infrastructuur
 - ii. Verkeersveiligheid / veilige routes naar school
 - iii. Aanwezigheid van speelplekken (zoals speeltuinen, parken en groen)
 - e. Betaalbare huisvesting
 - f. Mogelijkheden om in contact te komen met burens/mensen op straat
 - i. Ontmoetingsplekken in de publieke ruimte (pleinen, parken, groene ruimte, straatmeubilair en bankjes)
 - ii. Bij faciliteiten zoals kinderopvang/scholen/winkels
 - g. Gezondheid
 - i. Vervuiling
 - ii. Grote hoeveelheden autoverkeer
 - iii. Klimaatbestendigheid
2. Kunt u deze aspecten rangschikken op volgorde van belangrijkheid voor uw gezin?
→ briefjes (van tevoren opgeschreven)
- a. Waarom heeft u deze volgorde gekozen?
3. Welke plekken in de buurt / in de stad zijn het belangrijkste voor jullie als gezin? [plaatsen die vaak bezocht worden of op een andere manier waardevol zijn]
- a. Frequentie van bezoek
 - b. Gezelschap (alleen / met kinderen)
 - c. Bereikbaarheid
4. [als deelnemer langere tijd in de stad heeft gewoond] Welke invloed heeft het worden van een gezin gehad op de plekken die u regelmatig bezoekt en de waarde die u aan die plekken hecht?

Sociale netwerken in de buurt

1. Hoe zou u het contact met uw burens omschrijven?
2. Heeft u het gevoel dat er veel gezinnen bij in de buurt wonen?
 - a. Vindt u het fijn om omringd te zijn door mensen die op u lijken, of geeft u de voorkeur aan een diverse buurt?
3. Hoe belangrijk zijn lokale sociale netwerken/contacten in de buurt voor u?
4. Hoelang kent u uw voornaamste sociale contacten al?
5. Als u zou verhuizen, zou u het merendeel van uw sociale netwerk in de buurt bijhouden?
 - a. Als recent verhuisd of versuisplannen: is uw sociale netwerk een doorslaggevende factor in uw verhuisbeslissingen?
 - b. Als niet recent verhuisd: denkt u dat uw sociale netwerk uw locatiekeuzes zou beïnvloeden of u ervan zou weerhouden om over lange afstand te verhuizen?

Combineren van carrière en gezinsleven

1. Hebben u en uw partner (indien van toepassing) een betaalde baan?
 - a. Zo ja: hoeveel uren werken jullie (beide) ?
 - b. Hoe reist u naar uw werk, en hoeveel tijd kost dat u gemiddeld?

- c. Indien van toepassing: hoeveel dagen werkt u thuis?
 - i. Wat zijn uw redenen om thuis te werken met betrekking tot het hebben van kinderen?
2. Hoe zou u de verdeling van huishoudelijke en zorgtaken tussen u en uw partner beschrijven met betrekking tot jullie werk?
 - a. Welke invloed heeft uw huidige woonplek/de stedelijke omgeving op deze verdeling?
3. Welke invloed heeft uw huidige woonplek/de stedelijke omgeving op uw mogelijkheden om bepaald werk te combineren met de zorg voor kinderen?
4. Bent u tevreden met uw huidige werk/privé balans?
 - a. Welke invloed heeft uw huidige woonplek/de stedelijke omgeving op deze balans?
5. Heeft u moeite met het combineren van werk en kinderen?
 - a. Wat helpt u om stress te verminderen in zulke gevallen?

Participatie en ruimtelijke planning

1. Heeft u het gevoel dat er voldoende rekening gehouden wordt met de behoeften van gezinnen in deze stad?
2. Vindt u het belangrijk dat gezinnen een stem hebben in de ruimtelijke planning?
3. Heeft u het gevoel dat gezinnen goed vertegenwoordigd zijn in ruimtelijke planning?
4. Heeft u het gevoel dat u een stem heeft in wat er gaande is in uw buurt?
 - a. Heeft u ooit meegedaan aan participatieprocessen? (bijvoorbeeld vragenlijsten, bijeenkomsten in de buurt)
5. Denkt u dat participatieprocessen toegankelijk genoeg zijn voor gezinnen, of is er ruimte voor verbetering?
 - a. Als bepaalde dingen veranderd zouden worden (bijv. tijdstippen van bijeenkomsten, kinderopvang aanwezig), denkt u dat u (vaker) zou meedoen?
6. Wat is, in uw ogen, de belangrijkste kwestie/verbeterpunt waar ruimtelijke planning aan zou moeten werken om de stad meer gezinsvriendelijk te maken?

Afsluitende vragen

1. Is er iets dat we nog niet besproken hebben, waarvan u denkt dat dat relevant is voor mijn onderzoek? Of is er iets waar u graag op wilt terugkomen en meer over wilt uitwijden?
2. Heeft u nog vragen of opmerkingen voor mij?
3. Kent u nog mensen die ook bereid zouden zijn om een interview met mij te doen?
4. Wat vond u van dit interview?
 - a. Inhoud
 - b. Formulering van de vragen (begrijpelijke taal)
 - c. Lengte
5. Nogmaals heel erg bedankt voor uw tijd!

Appendix 2: Consent Form

English



university of
 groningen

faculty of spatial sciences

Consent form participation in Master thesis' research on family-friendly cities

Dear participant,

First of all, many thanks for taking the time to participate in this interview and thereby helping me with my master thesis research about the family-friendly cities! In this research, I try to find out what makes cities a good place to live for families and a good environment for children to grow up, or how this could be improved. During the interview, questions will be asked about amongst others your housing situation and preferences, and the needs of your family in an urban environment. You have also received the interview questions via e-mail.

This interview will last approximately one hour, but due the open structure, it may take longer or shorter.

By participating in the interview, you agree with the following, unless you make an explicit appeal:

- The interview will be recorded. The recording will be deleted afterwards.
- Participation in this research is voluntary. Therefore you have the following rights:
 - The right to withdraw from the interview at any time
 - The right to request deletion of material you do not want to be used in the thesis
 - The right not to answer a certain question during the interview
 - The right to ask to turn off the audio recording at any time
 - The right to ask questions about the study at any time during participation
- The results will be published anonymously. The use of personal characteristics will not lead to identifiability of you as an individual.
- The transcript will be accessible only to the researcher, supervisor and the second assessor. The transcript will also be anonymised.
- The final product will be published publicly via the University of Groningen archives.

If you have any questions or would like to withdraw from the research, you can always contact the researcher via e-mail: t.j.kauffmann@student.rug.nl

Thank you so much for your contribution!

Kind regards,

Tineke Kauffmann

Master's student in Society, Sustainability and Planning at the University of Groningen

Dutch



university of
 groningen

faculty of spatial sciences

Toestemmingsformulier voor deelname aan onderzoek masterscriptie gezinsvriendelijke stad

Beste deelnemer,

Allereerst hartelijk bedankt dat u de tijd wilt nemen om mee te werken aan dit interview en mij daarmee helpt met mijn onderzoek voor mijn masterscriptie over de gezinsvriendelijke stad! Hierin probeer ik uit te zoeken wat de stad precies maakt tot een fijne plek om te wonen voor gezinnen en een goed milieu voor kinderen om op te groeien, of hoe dit verbeterd zou kunnen worden. Tijdens het interview zullen vragen gesteld worden over onder andere uw woonsituatie en -voorkeuren, en de behoeften van uw gezin in een stedelijke omgeving. U heeft de interviewvragen ook per mail toegestuurd gekregen.

Het interview zal waarschijnlijk ongeveer een uur duren, maar door de open structuur kan het ook langer of korter duren.

Bij deelname aan het interview gaat u akkoord met het volgende, tenzij u hier expliciet bezwaar tegen maakt:

- Er zal een audio-opname van het interview worden gemaakt voor transcriptie. De opname zal hierna worden verwijderd.
- Deelname aan het onderzoek is vrijwillig. Daarom heeft u de volgende rechten:
 - Het recht om het interview op elk moment te beëindigen zonder een reden op te geven.
 - Het recht om te vragen om het wissen van materiaal waarvan u niet wilt dat het gebruikt wordt in de scriptie
 - Het recht om een bepaalde vraag tijdens het interview niet te beantwoorden
 - Het recht om op elk moment te vragen de audio-opname uit te schakelen
 - Het recht om vragen te stellen over het onderzoek op elk moment tijdens de deelname
- De resultaten zullen anoniem gepubliceerd worden. Het gebruik van persoonlijke kenmerken zal niet herleidbaar zijn naar u als individu.
- Het transcript zal alleen toegankelijk zijn voor de onderzoeker, diens begeleider en de tweede corrector. Het transcript zal ook worden geanonimiseerd.
- Het eindproduct zal publiekelijk worden gepubliceerd via het archief van de Rijksuniversiteit Groningen.

Als u vragen heeft of zich wilt terugtrekken uit het onderzoek, kunt u altijd contact opnemen met mij via e-mail: t.j.kauffmann@student.rug.nl.

Alvast heel erg bedankt voor uw bijdrage!

Met vriendelijke groet,

Tineke Kauffmann

Masterstudent Society, Sustainability and Planning [Sociale Planologie] aan de Rijksuniversiteit Groningen

Appendix 3: Participant recruitment call

English

Email to primary schools/childcare organizations:

Subject: Looking for parents/caregivers for interviews master thesis family-friendly city

Dear [school administration / child care organization / extracurricular care organization in Groningen],

My name is Tineke Kauffmann, and I am currently writing my master thesis for the programme Society, Sustainability and Planning at the University of Groningen. My thesis focuses on the family-friendly city, and I try to find out what exactly makes the city a great place to live for families and a good environment for children to grow up, or how this could be improved. Therefore I would like to get in touch with parents or caregivers living within the ring road of Groningen for an interview.

Would you like to spread the call below amongst parents/caregivers of all children within your organization? This email contains both an English and Dutch message, in case there are parents with international backgrounds within your organization.

If you have any specific questions and want to reach me quickly, you can besides emailing call me via 06-*****. This phone number can potentially be shared with parents or caregivers who are interested in an interview or have questions and would like to contact me directly by phone, but I prefer not to spread this number in a general call.

I would like to thank you in advance for your cooperation, and please do not hesitate to contact me in case of any questions!

Kind regards,

Tineke Kauffmann
Master student Society, Sustainability and Planning

Looking for parents/caregivers for interviews master thesis family-friendly city

My name is Tineke Kauffmann, and I am currently writing my master thesis for the programme Society, Sustainability and Planning at the University of Groningen. The topic of my thesis is the family-friendly city, and I aim to find out what makes cities a good place to live for families and a suitable environment to grow up in as children, or how this could be improved.

Therefore, I would love to get in touch with you for an interview!

In this interview, questions will be asked about your housing situation and preferences, and the needs of your family in an urban environment.

The interview will approximately take one hour, but it could also be longer or shorter.

I am specifically looking for participants within the following profile:

- Parent or caregiver of children of least one cohabiting child
- Age: from the millennial generation (born between 1981 and 1996). However, one or two years difference is not a problem (as long as the other criteria are met)

- At least one parent or caregiver with a paid job (you, your partner or both)
- Living within the Ring road of Groningen
- All household compositions are welcome, so next to the 'traditional family' also single-parent families, multiple generation families, adoptive families or gay couples

If you recognize yourself in this profile and are willing to cooperate for an interview, you can sign up via the following link for a moment and indicate your preference for a location:

<https://datumprikker.nl/pbxhufk6uscqy82p>

You do not have to indicate your availability for each day, but you can choose one (or multiple) moment(s) from the list that suit you.

After you have chosen a moment, I will contact you via email to discuss the location and other details.

If there are no suitable moments, please contact me via t.j.kauffmann@student.rug.nl. Then we will look together for other options.

I am always available for questions via email: t.j.kauffmann@student.rug.nl!

Many thanks in advance for your help!

Flyer:



university of groningen faculty of spatial sciences

Looking for parents/caregivers for interviews master thesis family-friendly city

Who: Tineke Kauffmann
Study programme: MSc Society, Sustainability and Planning
Subject: what makes cities a good place to live for families and for children to grow up? Preferences and needs of families in an urban environment
Duration interview: approximately 1 hour
Contact: t.j.kauffmann@student.rug.nl

Participant profile:

- Parent/caregiver of at least co-habiting child
- Age: from the millennial generation (born between 1981 and 1996). However, one or two years difference is not a problem (as long as the other criteria are met)
- At least one parent or caregiver with a paid job (you, your partner or both)
- Living within the Ring road of Groningen
- All household compositions are welcome

Plan een interview:



Dutch

Mail naar scholen/kinderopvangorganisaties:

Onderwerp: Oproep: Ouders gezocht voor interviews voor masterscriptie gezinsvriendelijke stad

Beste [schooladministratie / kinderopvangorganisatie / buitenschoolse opvang in Groningen],

Mijn naam is Tineke Kauffmann, en ik ben momenteel bezig met het schrijven van mijn masterscriptie voor de opleiding Society, Sustainability and Planning (Sociale Planologie) aan de Rijksuniversiteit Groningen. Mijn scriptie gaat over de gezinsvriendelijke stad, en ik probeer uit te zoeken wat de stad precies maakt tot een fijne plek om te wonen voor gezinnen en een goed milieu voor kinderen om op te groeien, of hoe dit verbeterd zou kunnen worden. Hiervoor zou ik graag in contact komen met ouders of verzorgers die woonachtig zijn binnen de ringweg van Groningen om een interview mee te houden.

Zouden jullie onderstaande oproep willen verspreiden onder ouders/verzorgers van alle kinderen binnen jullie organisatie? In deze mails staat zowel een Engelstalig als Nederlandstalig bericht, in het geval dat er binnen jullie organisatie ouders met een internationale achtergrond zijn.

Mochten jullie nog specifieke vragen hebben en mij snel willen bereiken, kunnen jullie mij naast mailen ook bellen op 06-*****. Dit telefoonnummer mag eventueel ook gedeeld worden met ouders of verzorgers die geïnteresseerd zijn in een interview of vragen hebben en graag direct telefonisch contact met mij op willen nemen, maar liever niet dit nummer in een algemene oproep verspreiden.

Ik wil jullie alvast hartelijk bedanken voor de medewerking, en schroom niet om contact op te nemen bij mij in het geval van vragen!

Met vriendelijke groet,

Tineke Kauffmann
Master student Society, Sustainability and Planning

Ouders/verzorgers gezocht voor interviews masterscriptie gezinsvriendelijke stad

Mijn naam is Tineke Kauffmann, en ik ben momenteel bezig met het schrijven van mijn masterscriptie voor de opleiding Society, Sustainability and Planning (Sociale Planologie) aan de Rijksuniversiteit Groningen. Mijn scriptie gaat over de gezinsvriendelijke stad, en ik probeer uit te zoeken wat de stad precies maakt tot een fijne plek om te wonen voor gezinnen en een goed milieu voor kinderen om op te groeien, of hoe dit verbeterd zou kunnen worden.

Hiervoor zou ik heel graag in contact komen met u voor een interview!

Dit interview zal gaan over uw woonsituatie en -voorkeuren en de behoeften van uw gezin in een stedelijke omgeving. Het interview zal naar schatting een uur duren, maar kan mogelijk ook langer of korter zijn.

Ik ben specifiek op zoek naar deelnemers met het volgende profiel:

- Ouder/verzorger van tenminste één thuiswonend kind
- Leeftijd: afkomstig uit de millennial generatie (geboren tussen 1981 en 1996). Echter, één of twee jaar verschil is geen probleem (zolang aan de andere criteria wordt voldaan)
- Tenminste één ouder of verzorger met een betaalde baan (u, uw partner of beide)

- Woonachtig binnen de ringweg van Groningen
- Alle gezinssamenstellingen zijn welkom, dus naast het 'traditionale gezin' ook eenoudergezinnen, meergeneratiegezinnen, adoptiegezinnen of homostellen

Als u zich herkent in dit profiel en bereid om mee te werken aan een interview, kunt u zich via de datumprikker inschrijven voor een moment en uw voorkeur voor een locatie aangeven:

<https://datumprikker.nl/pbxhufk6uscqy82p>

U hoeft niet voor elke dag uw beschikbaarheid aan te geven, maar u kan één (of meerdere) moment(en) kiezen uit de lijst waarop het u schikt.

Wanneer u een moment heeft gekozen, zal ik met u contact opnemen om de locatie en andere details af te stemmen.

Mochten er geen geschikte momenten tussen zitten, neem dan vooral contact op met mij via t.j.kauffmann@student.rug.nl. Dan kijken we in overleg naar andere mogelijkheden.

Wanneer u vragen heeft, ben ik altijd bereikbaar via de mail: t.j.kauffmann@student.rug.nl! Alvast heel erg bedankt voor uw hulp!

Flyer:

university of groningen faculty of spatial sciences

Ouders/verzorgers gezocht voor interview masterscriptie gezinsvriendelijke stad!

Wie: Tineke Kauffmann
Studie: Sociale Planologie (MSc Society, Sustainability and Planning)
Onderwerp: wat maakt de stad een fijne plek om te wonen voor gezinnen en voor kinderen om op te groeien? Voorkeuren en behoeften van gezinnen in een stedelijke omgeving
Duur interview: ongeveer 1 uur
Contact: t.j.kauffmann@student.rug.nl

Profiel:

- Ouder/verzorger van tenminste één thuiswonend kind
- Leeftijd: afkomstig uit de millennial generatie (geboren tussen 1981 en 1996). Eén of twee jaar verschil is geen probleem (zolang aan de andere criteria wordt voldaan)
- Tenminste één ouder of verzorger met een betaalde baan (u, uw partner of beide)
- Woonachtig binnen de ringweg van Groningen
- Alle gezinssamenstellingen zijn welkom

Plan een interview:

Appendix 4: Coding tree

A visual overview of the code groups applied in ATLAS.ti, based on participants' narratives. The colour scheme shows resemblance with the categorization of the criteria lists (appendix 6 / table 5.1 and 5.2)



Appendix 5: Representative excerpts of codes

Code	Quote (English)	Quote (Dutch)
Access to facilities	Well and the facilities are also very important because you can be somewhere that is affordable but if there is nothing else, e.g. Scharmer seems like a really nice village to live in but there is nothing, so we won't do that, there is only a lot of space there	Nou en de voorzieningen zijn ook heel belangrijk want je kan wel ergens zitten wat goed te betalen is maar als er verder niks is, bijv. Scharmer lijkt me een hartstikke leuk dorp om te wonen maar er is niks, dus dat doen we dan maar niet, daar heb je alleen veel ruimte
Access to jobs	Yes. Well, I don't want to cycle too far to my work either, it has to be a bit nearby.	Ja. Nou ja, ik wil ook niet te ver naar mijn werk fietsen, dat moet wel een beetje in de buurt zijn.
Accessibility	we wanted to be close to the railway station, because then we could easily travel by public transport	we wilden dichtbij het station zijn, want dan konden we makkelijk reizen met openbaar vervoer
Affordability	Okay, well affordable housing we thought about, because otherwise we couldn't buy the house. And that always comes into play, because that already determines a lot of	Oké, nou betaalbare huisvesting hebben we over nagedacht, want anders konden we het huis niet kopen. En dat speelt altijd mee, want dat bepaalt al een heleboel
Calmness	Disadvantage I find that, there is not much peace around you, then you do pass a lot of cars here or scooters or there is always something	Nadeel vind ik dat, er is niet veel rust om je heen, dan ga je hier wel veel auto's voorbij of scooters of er is altijd wel iets
Centrality	I also really had the map of Groningen and well first we lived so just outside the diepenring officially. And I really had with a highlighter of it must be inside the ring.	Ik had ook echt de kaart van Groningen en nou eerst woonden we dus net buiten de diepenring officieel. En ik had echt met een markeerstift van het moet binnen de ring zijn.
Child-friendliness	And the third, child-friendliness, yes I think that is very important for my children, that my children can play outside undisturbed, that they can go to the playground independently	En de derde, kindvriendelijkheid, ja dat vind ik heel belangrijk voor mijn kinderen, dat mijn kinderen ongestoord buiten kunnen spelen, dat ze zelfstandig naar de speeltuin kunnen
Demographic composition	And also the population composition, that also depends on the name of the neighbourhood though, but I don't need to live among only FC Groningen folk either.	En ook wel de bevolkingssamenstelling, dat hangt ook samen met de naam van de buurt wel, maar ik hoef ook niet tussen alleen maar FC-Groningen hoede te wonen.
Diversity	But if I lived here like this in a Vinex neighbourhood somewhere in I don't know what kind of terrible monoculture composite family neighbourhood, I would go screaming mad and then this is another bigger pain point	Maar als ik hier zo in een Vinex wijk ergens in weet ik veel wat voor een verschrikkelijke monocultuur samengestelde gezinswijk zou wonen, dan zou ik gillend gek worden en dan is dit weer een groter pijnpunt
Employment	Well, that's a tricky question. If I live in the middle of nowhere. And, There is almost nothing, then jobs are also scarce and mono. Then it could just be that if I had grown up in that biotope that those choices would have been earlier or on different kinds of jobs. That I would then indeed have mattered less and ended up in a very different situation. So	Nou, dat is een lastige vraag. Als ik in de middle of nowhere woon. En, Er is bijna niks, dan zijn de banen ook schaars en mono. Dan zou het maar zo kunnen zijn als ik in die biotoop zou zijn opgegroeid dat die keuzes dan ook eerder of op andersoortige banen zou zijn gevallen. Dat ik dan inderdaad het minder uit zou maken en dat ik dan een heel andere situatie terecht

	I can't say that like that, I guess.	zou komen. Dus dat kan ik niet zo zeggen, denk ik.
Friends/family	because with my mother I lived in Groningen and in my early years as a mother I missed that very much that I couldn't just call my mother. Like hey are you home, shall I come over with the kids? Because she really had to organise herself to come to Amsterdam for a day. And then I actually realised that I really wanted my children to grow up near their grandmother as well	omdat met mijn moeder in Groningen woonde en ik in mijn beginjaren als moeder dat heel erg miste dat ik niet even mijn moeder kon bellen. Van hé ben je thuis, zal ik even met de kinderen langskomen? Want zij moest zich wel echt organiseren om een dagje naar Amsterdam te komen. En toen besepte ik eigenlijk dat ik wel nou heel graag mijn kinderen ook vlakbij hun oma wilde laten opgroeien
Garden	And the garden was essential too, we wouldn't have bought a house if there hadn't been a garden	En de tuin was ook wel essentieel, we hadden geen huis gekocht als er geen tuin was geweest
Green space	And that there is also greenery in the neighbourhood. Because we used to live in the Noorderplantsoen, which was our back garden, and we had lots of birds and lots of trees.	En dat er ook wel groen is in de buurt. Want eerst woonden we dus nou ja Noorderplantsoen was onze achtertuin eigenlijk en hadden we heel veel vogels en ook wel heel veel bomen.
Health	Some properties do drop out for us, because we then see that they are too close to the ring road or something and then we don't want to live there. We didn't research it specifically for this property.	Sommige woningen vallen wel af voor ons, omdat we dan zien dat ze te dicht bij de ringweg liggen ofzo en dan willen we daar niet wonen. We hebben het niet specifiek voor deze woning onderzocht.
Housing market	Yes, not so much in our row, but I do notice it a bit in the surrounding streets. But of course, we also have a lot of flats around us, and they are large flats. When we came to live here, I had the idea that there were no families living there, and I think that now, because of the depressed housing market, it is not possible for some people to move on when they are expecting a baby, so they get a family here in the flat. And also so in the surrounding streets indeed, but that has changed in recent years compared to 10 years ago when we bought it.	Ja, op ons rijtje dus niet zozeer, maar ik merk het wel een beetje in de omliggende straten inderdaad. Maarja, we hebben natuurlijk ook een enorme hoeveelheid flats hier om ons heen, en dat zijn ook wel grote appartementen, toen we hier kwamen wonen woonden daar echt geen gezinnen had ik het idee, en dat is nu denk ik ook wel een beetje door de belaste huizenmarkt, dat daar voor sommige mensen niet mogelijk is om door te verhuizen als ze in verwachting zijn, dat ze dan ook wel hier in de flat een gezin krijgen. En ook dus in de omliggende straten inderdaad, maar dat is wel de afgelopen jaren veranderd ten opzichte van 10 jaar geleden toen we het kochten.
Image of the neighbourhood	Yes, and the name of the neighbourhood, yes, look, often people also find something that is just not right, then something starts to become a myth, saga or a legend so that name does matter to check how real that is too	Ja, en de naam van de buurt, ja, kijk, vaak vinden mensen ook iets wat gewoon niet klopt, dan gaat iets een mythe, sage of een legende worden dus die naam is wel belangrijk om te checken hoe reëel dat ook is
Important places	Yes, we value the city centre very much. And the parks and cycle paths around here. The cycle paths are very important because you can just enjoy cycling together there. And our daughter likes that very much too, to cycle.	Ja, we hechten heel veel waarde aan de binnenstad. En de parken en de fietspaden hier in de buurt. De fietspaden zijn heel belangrijk om dat je daar gewoon lekker kan fietsen met elkaar. En dat vindt onze dochter ook heel fijn, om te fietsen.

Indoor space	So the reason we were moving was really that the house was so too small where we were living, so that was kind of, also a requirement, it just had to be big enough, because we were going to have a family	De reden dat we gingen verhuizen was dus echt dat het huis dus te klein was waar we woonden, dus dat was een soort van, ook een vereiste, het moest gewoon groot genoeg zijn, want we gingen een gezin krijgen
Inner city struggles	For example, there is no, I think there is no playground in the city centre, just not, zero. Surely that is crazy, so to that extent the city is also really set up for, yes not for families with children	Er is bijvoorbeeld geen, volgens mij is er geen enkele speeltuin in het centrum, gewoon niet, nul. Dat is toch bijzonder, dus in zoverre is de stad ook wel echt ingericht op, ja niet niet op gezinnen met kinderen, dit zijn..
Logistics	Logistical distance. That is true, that is one of the most important things, because it is so busy with children and you also want to have a normal life next to it. And you still want to have time for yourself and if you have to spend all that on travelling time and fetching and dropping off, it drives you crazy.	Logistieke afstand. Dat is ech, dat is één van de belangrijkste zaken, want het is zo druk met kinderen en je wil er ook nog een normaal leven naast hebben. En je wil nog zelf tijd voor jezelf hebben en als je dat allemaal moet opmaken aan aan reistijd en aan halen en brengen en daar wordt je helemaal gek van dus.
Long-term plans	Yes, well we are incredibly comfortable in this place, so that has never been the reason to look for a new house per se, because we are very happy with this neighbourhood and the house. Only there has always been a desire to have a bit more space, especially in terms of outside. So we bought a house in Paterswolde, so we are now very busy renovating there.	Ja, nou we zitten ontzettend goed op deze plek, dus dat is nooit de reden geweest om op zoek te gaan naar een nieuw huis op zich, want we zijn heel blij met deze buurt en het huis. Alleen er is altijd wel een wens geweest om een beetje meer ruimte te hebben, vooral qua buiten. Dus we hebben een huis gekocht in Paterswolde, dus daar zijn we nu heel druk aan het verbouwen.
Neighbors	And then, I think this kind of equates to each other all the time. Yes. Because I feel, if you have nice neighbours and if things are going well there, then it's also child-friendly anyway.	En dan, ik vind dit soort van gelijk staan aan elkaar altijd. Ja. Omdat ik het idee heb, als je fijne burens hebt en als het daar lekker gaat, dan is het ook sowieso al kindvriendelijk.
Other families	I would have liked it more, but it's not a reason for me to say, I'll leave then or I don't know what. Not that at all. But no, I would like it if people moved in around me with children, yes. For the buzz in the neighbourhood or for the buzz on the street.	Ik had het graag meer gezien, maar het is voor mij niet een reden om te zeggen, ik ga dan weg of weet ik veel wat. Dat helemaal niet. Maar nee, ik zou het leuk vinden als er om mij heen mensen zouden komen wonen met kinderen, ja. Voor de reuring in de wijk of voor de reuring op straat.
Participation	Yes, I wouldn't know how then. But yes, it is yes. Yes, but that's with everything I think that is changing in the city that it would be nice if residents had a voice in it	Ja, ik zou niet weten hoe dan. Maar ja, het is wel ja. Ja, maar dat is met alles denk ik wat er veranderd in de stad dat het fijn zou zijn als inwoners er een stem in hebben.

Place attachment	Yes, now we have a really nice neighbourhood with lots of people we know very well. And many young families whose children all play nicely together, and we all know that there is always someone to keep an eye on them or not, but that the children will ring the bell. That they can walk in anywhere, but that I can also always turn to someone for help. I hadn't beforehand, if we didn't have this like this, I don't know that I would miss that very much probably. But it does make it difficult for us to move, because the children have such an incredibly nice playground and are so safe in the neighbourhood. And that's also down to that network, so I think here.	Ja, nu hebben wij echt een super prettige wijk met veel mensen die we inmiddels gewoon goed kennen. En veel jonge gezinnen waarvan de kinderen allemaal fijn met elkaar spelen, waarvan we eigenlijk allemaal ook weten dat er altijd wel er iemand is die een oogje in het zeil houdt of niet, maar dat de kinderen dan wel aan de bel trekken. Dat ze overal naar binnen kunnen lopen, maar dat ik ook altijd bij iemand terecht kan voor hulp. Ik had van tevoren niet, als we dit niet zo zouden hebben, dan zou ik niet weten dat ik dat heel erg zou missen waarschijnlijk. Maar het maakt het voor ons wel moeilijk om te verhuizen, omdat de kinderen zo'n ontzettend fijne speelplek hebben en zo veilig zijn in de buurt. En dat ligt ook aan dat netwerk, dus denk ik hier.
Play spaces	Criteria are that there are play facilities nearby.	Criteria zijn dat er speelgelegenheid in de buurt is.
Points of improvement	Well, that is, I think it is always good to make the city even more bicycle-friendly, also that children can cycle easily. As a city, I don't think you can always do anything about that either, because there are also just a lot of bikes and that almost makes it more exciting for children to cycle by themselves, the amount of other road users	Nouja, dat is, ik vind het altijd goed om de stad nog fietsvriendelijker te maken, ook dat kinderen makkelijk kunnen fietsen. Daar kun je als stad denk ik ook niet altijd wat aan doen, want er zijn ook gewoon heel veel fietsen en dat maakt het bijna spannender voor kinderen om zelf te fietsen, de hoeveelheid andere verkeersdeelnemers
Pre-assumptions	I had also made a list myself when we had looked here, because I was enthusiastic about the house and I had made a whole list of up to 30 advantages about the house itself, of course. And well, also about the children staying at the same school etcetera. And the only disadvantage I could think of was that it wasn't the neighbourhood I had ever thought about.	Ik had zelf ook een lijstje gemaakt toen we hier gekeken hadden, want over het huis was ik wel enthousiast en ik had een hele lijst gemaakt van wel 30 voordelen over het huis zelf natuurlijk. En nouja ook wel van de kinderen blijven op dezelfde school etcetera. En als enige nadeel kon ik dus bedenken dat het dus niet de buurt was waar ik over nagedacht had ooit, ik had er nooit over nagedacht.
Social cohesion	If we are just working in the front garden or I am playing with the children in the street, you will always meet a neighbour or have a chat, and everyone greets each other here, everyone is interested in each other. Our neighbours next door have just left for three months on a kind of tour of Europe and they left last weekend and we just spontaneously waved them goodbye with the whole street. That's not something we agreed on at all, but everyone is like, oh they're leaving now, oh we're just going outside, oh we're just going to say hello. And I think that is really characteristic of the contact here with the neighbours.	Als wij gewoon hier in de voortuin aan het werk zijn of ik ben met de kinderen buiten op straat aan het spelen, dan is eigenlijk altijd dat je wel een buurman of een buurvrouw treft of wel even een kletspraatje maakt, en iedereen groet hier elkaar, iedereen is geïnteresseerd in elkaar. Onze burennasten zijn net voor 3 maanden vertrokken op een soort van tour door Europa en die vertrokken dus afgelopen weekend en dan gewoon spontaan zwaaien wij met de hele straat ze uit. Dat is helemaal niet iets afgesproken, maar iedereen heeft dus door van, oh ze gaan nu, oh we lopen even naar buiten, oh we zeggen even gedag. En dat is wel echt kenmerkend denk ik voor het contact hier met de burennasten.

Social network	And a social network close by is important to me because, but you get that a bit quicker, in the city that's also nice to have close by, so 'It takes a village to raise a child' and so on. Both of us have parents we can't rely on in terms of babysitting. Well, that's quite something I hadn't calculated in advance that that would happen, but it has happened anyway, so that means we don't have a backstop, familial backstop so to speak. Well, that's quite complicated, so that means having to sort it all out yourself and then it's nice to have people around you, if you build up a kind of shell around you and to sort that out anyway.	En sociaal netwerk dichtbij vind ik belangrijk omdat, maar dat heb je al wel wat sneller, in de stad is dat ook dat gewoon fijn is om dichtbij te hebben, dus 'It takes a village to raise a child' enzo. Allebei hebben wij ouders waar we niet op kunnen bouwen qua oppas. Nou, dat is best wel iets wat ik niet van tevoren had ingecalculeerd dat dat zou gaan gebeuren, maar dat is toch gebeurd, dus dat betekent dat we geen achtervang hebben, familiale achtervang zegmaar. Nou, dat is best wel ingewikkeld, dus dat betekent dat het allemaal zelf moet oplossen en dan is het fijn als er mensen om je heen, als je een soort schilletje opbouwt om je heen en om dat toch te regelen.
Social safety	everything that is being built, that makes sense. That will all be on the outskirts and I sometimes find that, in my opinion, but I am very anxious about that, accessibility is not very safe or something. [...] then, for example if you want to cycle, because you live a bit further outside the city that you have a very lonely cycle path.	alles wat erbij gebouwd wordt, dat is logisch. Dat komt allemaal aan de rand en dat vind ik soms, dan is de bereikbaarheid naar mijn idee, maar daar ben ik heel angstig in, niet heel fijn veilig of zo. [...] Dan het dan, bijvoorbeeld als je wil fietsen, omdat je dan toch wat verder buiten de stad woont dat je zo een heel eenzaam fietspad hebt.
Spatial structure	So I wouldn't want to live in a flat, for example or something. Because you then, that's where it gets more complicated so the higher the high-rise, the more anonymous the experience.	ik zou dus niet in een flat willen wonen, bijvoorbeeld of zo. Omdat je daar dan, daar wordt het ingewikkelder van dus hoe, hè, hoe hoger de hoogbouw, hoe anoniemer de ervaring.
Traffic safety	But the annoying thing is that the municipality has decided that across that residential yard there should also be a main traffic cycle route, from south to north. As a result, there are lots of cyclists and scooters and speed pedelecs and all sorts of things every day thousands of them cycle through the street lol, so you can't use the residential area like a residential area is. So my kids can't play in front of the street.	Maar het vervelende is dat de gemeente heeft bedacht dat over dat woonerf heen ook een hoofdverkeersfietsroute moet komen, van Zuid naar Noord. Met als gevolg dat er heel veel fietsers en scooters en speed pedelecs en van alles iedere dag duizenden door de straat heen fietsen hè, dus je kan niet gebruik maken van het woonerf zoals een woonerf is. Dus mijn kinderen kunnen niet spelen voor op straat.
Type of housing	We had an upstairs flat then, so there was very strong that desire for the garden	We hadden toen een bovenwoning, dus er was heel sterk die wens voor de tuin
Urban feeling	If we have to leave the city to Amstelveen, which is just like Haren or something. Well, I'd rather go to Groningen and have the urban feeling there than to sit in Amstelveen. Yes, so that was actually another choice based on a urban feeling I think	Als wij dan toch die stad uit moeten naar zo'n Amstelveen, dat is gewoon een soort Haren ofzo. Nou, liever naar Groningen, dan heb ik daar dan maar het stadse gevoel dan dat ik een beetje in Amstelveen ga zitten. Ja ja, dus dat was eigenlijk ook wel weer een keuze gemaakt berust op een stadsgevoel denk ik
Vibrancy	I also want some life in the neighbourhood. So, yes no, I don't quite need a little hut on the heath, so to speak. [...] Well, a really quiet village or so, that's not going to be it either.	Ik wil ook wel wat leven in de buurt. Dus, ja geen, ik hoef niet helemaal een hutje op de hei zegmaar. [...] Nou, echt een heel rustig dorp of zo, dat wordt hem ook niet.

Appendix 6: Criteria for choice of place of residence

The table below visualized the results of participants' criteria with regard to their choice of housing and place of residence, including the ranking from most important (top) to least important (bottom). The colour scheme corresponds to the categories presented in table 5.1 and 5.2.

	Participant							
Ranking	1	2	3	4	5	6	7	8
1	Location: within Ring Road	City centre at cycling distance	School nearby	Affordability	Facilities nearby	Sufficient indoor space	Structure of the neighbourhood (spacious)	Location in the city
				Facilities nearby	Logistics and proximity	Affordability		
2		Playing opportunities in neighbourhood	Garden	Image of the neighbourhood	Social network nearby	Garden	Green in the neighbourhood	Age of the home (charm)
	Cycling distance from school	Facilities at walking distance	Green environment		Sufficient living space (indoor)			
		Green space/nature at walking distance						
3	Green space in neighbourhood	Home with garden	Job nearby	Population composition	Diverse demographic composition	Location: facilities/city centre nearby (within ring road)	Child-friendliness (a.o. playing opportunities, traffic)	Green in the neighbourhood
	Urban feeling	Sufficient indoor space	Shops nearby				Demographics of the neighbourhood (social safety, crime)	
4	Neighbourhood not too impoverished	Station maximum 15 minutes cycling distance	Vibrant neighbourhood	Accessibility		Pleasant neighbourhood: neighbours	Location (relative to facilities)	Facilities (market)
	Type of neighbours					Pleasant neighbourhood: green space		
5	Connection to		Social opportunities			Accessibility to work	Accessibility (public)	Orientation of home with

	Noorderplantsoen						transport)	regards to sunlight
	Familiar surroundings					Orientation of home with regards to sunlight		
6	City centre and supermarket at cycling distance							Spacious home
7								Garden
8								Accessibility by car
9								Lay-out of the home / high ceilings
10								Home adaptable to own wishes

Appendix 6a: Impact of calculation method on average rankings table 5.2

There are different ways of calculating the average rankings of shared place criteria. Below, the average rankings of three possible calculation methods are shown. In table 5.2, method 1 has been applied. In all cases, in case multiple criteria were named within the same category, the average ranking of these criteria for each participant has been calculated first.

Possible methods:

1. Criteria with a shared ranking are calculated based on order regardless of the number of criteria above (e.g. two criteria on a shared fourth place are ranked 4)
2. Criteria with a shared ranking are calculated based on the average order of their spots, taking into account the number of criteria above (e.g. two criteria on a shared fourth place with four higher-placed criteria are ranked 5.5)
3. Criteria with a shared ranking are calculated based on order given the number of criteria above (e.g. two criteria on a shared fourth place with four higher-placed criteria are ranked 5. The next criterion is ranked 7)

Method 2 and 3 result in slightly higher values for all categories, but have not impacted the order of table 5.2. The table below shows the result of all three methods. Similar to table 5.2, all values are rounded to two decimal places.

Category	Average ranking method 1 (table 5.2)*	Average ranking method 2*	Average ranking method 3*
Child-friendliness	2.5	3.25	2.5
Health	2.58	3.17	2.75
Housing characteristics	2.79	3.81	3.42
Location of neighbourhood and logistics	3.1	4.09	3.88
Social life	3.5	4.75	4.5
Urbanity	3.5	4.88	4.75

**The values are rounded to two decimal places.*

Appendix 7: Ranking of environmental factors

The table below visualises the results of the ranking of factors as derived from the theoretical framework, from most important (top) to least important (bottom). To limit the text in the table, “opportunities to meet neighbours/people on the street” (see appendix 1, interview guide) has been shortened to “social opportunities”. The colour scheme corresponds with table 5.3 and 5.4.

	Participant							
Ranking	1	2	3	4	5	6	7	8
1	Central location/proximity	Central location/proximity	Child-friendliness	Affordable housing	Central location/proximity	Central location/proximity	Central location/proximity	Central location/proximity
		Access to facilities	Health	Health	Access to facilities	Access to facilities		
		Affordable housing				Accessibility		
2	Accessibility	Child-friendliness	Central location/proximity	Access to facilities	Accessibility	Child-friendliness	Child-friendliness	Child-friendliness
		Social opportunities	Accessibility	Child-friendliness	Access to jobs			
				Social opportunities				
3	Access to jobs and facilities	Accessibility	Affordable housing	Central location/proximity	Affordable housing	Health	Affordable housing	Health
		Health			Social opportunities		Social opportunities	
4	Affordable housing	Access to jobs	Access to jobs and facilities	Accessibility	Child-friendliness	Access to jobs	Health	Access to facilities
					Health			
5	Child-friendliness		Social opportunities	Access to jobs		Social opportunities	Access to facilities	Accessibility
6	Social opportunities					Affordable housing	Accessibility	Social opportunities
7	Health						Access to jobs	Access to jobs
8								Affordable housing

Appendix 7a: Impact of calculation method on average rankings table 5.4

Similar to the criteria lists, there are different ways of calculating the average rankings of shared place factors. In appendix 6a, three possible calculation methods are described. In table 5.4, method 1 has been applied. The table below shows the average rankings of each calculation method. It shows that the calculation method has a slight impact on the results:

- For method 2, child-friendliness and access to facilities have the same ranking (for method 1, child friendliness is slightly higher ranked than access to facilities)
- For method 3, child-friendliness is slightly lower ranked than access to facilities (for method 1, child friendliness is slightly higher ranked than access to facilities)
- For method 3, health and affordable housing have the same ranking (for method 1, health is slightly higher ranked than affordable housing)

Factor	Average ranking method 1 (table 5.4)**	Average ranking method 2**	Average ranking method 3**
Central location/proximity	1.34	2.17	1.88
Child-friendliness	2.5	3.6	3.75
Access to facilities	2.63	3.6	3.25
Accessibility	3.13	4.6	4.25
Health	3.25	5.25	5
Affordable housing	3.63	5.6	5
Social opportunities*	4	6.4	5.5
Access to jobs	4.5	7.4	6.13

*Shortened version of: opportunities to meet neighbours/people on the street)

**The values are rounded to two decimal places.

Appendix 8: Policy advice: a more inclusive approach to spatial planning

This appendix presents a number of policy recommendations based on the approach as argued for in section 7.1 to explicitly include families' needs in urban planning. Most aspects are generally applicable, and it is indicated which are specific to the local context of Groningen. A more inclusive approach to spatial planning includes, but is not limited to the following planning actions:

- Adding more spatial quality to the city as a whole, especially in the outer-urban neighbourhoods,
 - a better distribution of facilities over the city as a whole (multiple urban focal points)
 - more green spaces, especially in stone-dominated areas
 - playing spaces
 - a paddling pool, e.g. in the Stadspark [Groningen specific]
- Recognizing families living in the city centre as target group with specific needs and wishes
 - Provide facilities such as consultation clinics in the city centre [Groningen specific]
 - Organize activities where families and children living in the city centre can meet one another [Groningen specific]
 - Design urban public spaces with children playing in mind (not necessarily traditional equipment)
 - Apply a more open-minded perspective with regard to the diversity of ways and environments within parents choose to raise their children [Groningen specific]
- Keeping the city centre accessible to all population groups
 - Provide (underground) bicycle storage spaces that are accessible for childrens' carriages [Groningen specific]
 - Increase the number and distribution of designated bike parking spaces throughout the city centre [Groningen specific]
 - Provide broad sidewalks to make them more accessible for strollers
 - Provide more non-commercial spaces to stay in public, such as benches or other types of urban furniture
- Providing affordable and suitable housing for families
 - Sufficient space for families with multiple children
 - Including direct connection to outdoor green space (either public or private)
 - Preferably low blocks
 - Diversity of housing typologies
 - Diversity of price categories (e.g. by steering for minimum percentages social rent/medium rent/expensive owner-occupied housing)
 - Integral and compact design of different housing typologies and price categories at block level (*also contributes to creating vibrant communities by attracting a diverse population*)
- Promoting childrens' independent mobility and freedom to explore the city as a whole
 - Safe cycling routes to school
 - Specific measures: 'cycling streets', safe crossings, cyclist tunnel instead of traffic lights
 - Safe spaces to play on the street
 - Specific measures: traffic calming, speed bumps on main roads cutting through neighbourhoods
 - Safe and accessible routes between neighbourhoods to visit and explore other play spaces
 - Safe zones around schools and childcare facilities
 - Specific measures: car restrictions in surrounding streets and important routes for children
- Providing a healthy environment

- Replace diesel trains as soon as possible [Groningen specific]
- Limit nuisance due to late concerts and festivals near a residential area [Groningen specific]
- Sufficient coverage of green spaces and trees throughout all neighbourhoods for temperature control and shade
- Improving accessibility of participation in urban planning for families
 - Make opportunities for participation more visible
 - Lower thresholds by providing clear information who to approach with an idea, e.g. by appointing community leaders
 - Tailor communication strategies to reach families
 - Relieve the barriers of time investment, bureaucratic obstacles and childcare
 - Consult citizens as early in the process as possible
 - Change the system of neighbourhood councils: appointment of members based on interest instead of chance